حمل الآن

مجانا وحصريا

المراجعة رقم (1)

اختبار شهر فبراير





Model Exam 1

1 Choose the correct answer:

1. Curiosity Rover is designed to explore ....
   a. the Sun　　b. the moon
   c. Mars　　d. Earth
2. All the following are extracted from underground, except ....
   a. coal　　b. charcoal
   c. petroleum　　d. natural gas
3. Electric wires are made of ....
   a. plastic　　b. wood
   c. iron　　d. copper
4. When you rub your hands, kinetic energy changes into .... energy.
   a. light　　b. sound　　c. thermal　　d. chemical

2 Put (✓) or (✗):

1. The produced sound energy helps the hair dryer do its function. (　　)
2. Wood is the oldest fuel that has been used by ancient people. (　　)
3. Energy can't be changed from one form to another. (　　)
4. All types of fuel are extracted from underground. (　　)

3 Answer the following questions:

(A) Write the scientific term:

It is the robotic vehicle that explores Mars. (................................)

(B) Give a reason for:

Fossil fuel is considered a nonrenewable resource of energy.

....

Model Exam 2

1 Choose the correct answer:

1. All of the following store chemical energy, except ....
   a. a battery b. an apple
   c. a lamp d. coal

2. .... is a renewable resource of energy.
   a. Oil b. Coal
   c. Gasoline d. Corn

3. The produced .... energy doesn't help the blender do its job.
   a. sound b. kinetic
   c. chemical d. potential

4. .... is the oldest fuel that has been used by ancient people.
   a. Coal b. Oil c. Wood d. Charcoal

2 Put (✓) or (✗):

1. Mars Rover and toy cars can be operated from a distance. (   )
2. Some plants are used to make liquid biofuel. (   )
3. Most energy chains start with the moon. (   )
4. Short trips consume more fuel than long trips. (   )

3 Answer the following questions:

(A) Write the scientific term:

It is a material that releases thermal energy upon burning.

(....................................)

(B) Give a reason for:

The sound energy seems to be lost energy in the hair dryer.

....

Model Exam 3

1 Choose the correct answer:

1. During riding a bike, some kinetic energy is converted into .... energy due to the friction of the bike's tires with the road.
   a. chemical   b. potential   c. thermal   d. electrical
2. .... takes millions of years to be formed.
   a. Coal   b. Charcoal   c. Wood   d. Corn
3. .... is considered the main source of energy on the Earth's surface.
   a. Fuel   b. The moon   c. The Sun   d. A battery
4. One of the disadvantages of overusing biofuel is ....
   a. decomposition   b. deforestation   c. rain   d. wildfires

2 Put (✓) or (✗):

1. Both the electric bulb and the electric heater produce thermal energy. (   )
2. Fossil fuel is made from living things that can be grown. (   )
3. When pedaling a bike, the chemical energy in your body changes to kinetic energy. (   )
4. There is stored chemical energy inside the food we eat. (   )

3 Answer the following questions:

(A) Write the scientific term:

It is the fuel that is made from living organisms that can be planted. (....................)

(B) Give a reason for:

The batteries used in the toys cannot be used to charge the Curiosity Rover.

....

Model Exam 4

1 Choose the correct answer:

1. All the following devices produce thermal energy, except the ....
   a. hair dryer
   b. watch
   c. kettle
   d. electric heater
2. On heating water, it turns into ....
   a. steam
   b. ice
   c. electricity
   d. fuel
3. When you turn on your television, the electrical energy travels through the .... until it reaches the television.
   a. wires
   b. air
   c. screens
   d. plastics
4. .... is considered as a type of biofuel.
   a. Coal
   b. Oil
   c. Wood
   d. Natural gas

2 Correct the underlined words:

1. Sound energy is the lost energy in a computer. (....................)
2. The energy chain always starts with the moon. (....................)
3. Coal stores thermal energy. (....................)
4. Plants convert the light energy coming from the Sun into the kinetic energy stored in the sugar. (....................)

3 Answer the following questions:

(A) Write the scientific term:

It is the energy consumed in the device. (....................)

(B) What happens if:

The remains of plants decompose over millions of years?

....

Model Exam 5

1 Choose the correct answer:

1. During charging a mobile phone, the .... energy is stored in the battery as .... energy.
   a. chemical - electrical b. electrical - chemical
   c. electrical - sound d. chemical - light
2. If we are going on a long road trip, we must check the ....
   a. seats b. doors
   c. speedometer d. gasoline pointer
3. The .... uses thermal energy to do its function.
   a. mobile phone b. washing machine
   c. TV d. hair dryer
4. Fuel is used as a source of .... energy.
   a. thermal b. chemical c. light d. solar

2 Put (✓) or (✗):

1. The amount of electrical energy used to charge a mobile phone is greater than the produced light energy. (   )
2. We cannot drive a car if the gasoline inside the fuel tank runs out. (   )
3. Thermal energy is produced by burning a piece of wood. (   )
4. It is easy to replace the batteries of the Curiosity Rover. (   )

3 Answer the following questions:

(A) Write the scientific term:

It is the energy that helps a light bulb do its main job. (....................)

(B) What happens if:

We cut down trees at a fast rate to get wood?

....

Answers

Model Exam 1

1. 1 c 2 b 3 d 4 c
2. 1 ✗ 2 ✓ 3 ✗ 4 ✗
3. (A) Mars Curiosity Rover
   (B) Because it starts to run out as we use it, and it can't be renewed easily.

Model Exam 2

1. 1 c 2 d 3 a 4 c
2. 1 ✓ 2 ✓ 3 ✗ 4 ✗
3. (A) Fuel
   (B) Because sound energy doesn't help the hair dryer to do its main job.

Model Exam 3

1. 1 c 2 a 3 c 4 b
2. 1 ✓ 2 ✗ 3 ✓ 4 ✓
3. (A) Biofuel
   (B) Because Mars Curiosity Rover is very far from any store or any plug.

Model Exam 4

1. 1 b 2 a 3 a 4 c
2. 1 Thermal 2 Sun 3 chemical 4 chemical
3. (A) Input energy
   (B) Coal will be formed.

Model Exam 5

1. 1 b 2 d 3 d 4 a
2. 1 ✓ 2 ✓ 3 ✓ 4 ✗
3. (A) Light energy
   (B) This leads to deforestation.




كيفية طباعة صفحات معينة من ملف معين

مثلا ازاى نطبع الصفحات من صفحة 4 الى صفحة 9

خطوة 1

خطوة 2 اختيار اسم الطابعة بتاعتك

خطوة 3 كتابة الصفحات المراد طباعتها نكتب رقم 4 ثم نكتب الشرطة دي – ثم نكتب 9

خطوة 4 اختيار نوع الورق

خطوة 5 اختيار A4

خطوة 6

حمل الآن

مجانا وحصريا

المراجعة رقم (2)

اختبار شهر فبراير





Exams 2024

Model (1)

15 Marks

1 Choose the correct answer:

1. .... is the input form of energy used to operate the television.

   a) Thermal energy b) Sound energy

   c) Electrical energy d) Light energy

2. Curiosity rover uses .... to operate while exploring Mars.

   a) solar energy b) electricity c) long lasting batteries d) (a) and (c)

3. All the following actions don't conserve electrical energy, except ....

   a) unplugging unused electrical devices

   b) plugging many unused electrical devices

   c) turning on all the house lights all the day long

   d) leaving the television turned on all the day

2 Complete the following sentences from the words between brackets:

1. The electric stove uses .... (electrical – thermal) energy, while the solar stove produces .... (light – thermal) energy.

2. .... is produced from dead marine animals. (Oil – Charcoal)

3. Energy produced from fossil fuel is .... expensive than using renewable resources. (less – more)

3 (A) Give a reason for:

- Sound energy that is produced from an operating machine is wasted.

  - ....

(B) What happens when ...?

- Humans increase using the wood of trees as a source of fuel.

  - ....

Model (2)



1 Choose the correct answer:

1. The cell phone converts chemical energy into .... energy, and .... energy.

   a) sound, light   b) chemical, thermal   c) potential, light   d) thermal, potential

2. What happens to the energy that is not used in a device?

   a) It isn't converted into a different form of energy.

   b) It is stored for later use.

   c) It is released as waste heat or sound.

   d) It is transferred to another device.

3. All the following are non-renewable sources of energy, except ....

   a) coal   b) water   c) gasoline   d) natural gas

2 Complete the following sentences from the words between brackets:

1. The lost form of energy in an electric sharpener is .... energy. (thermal – kinetic)

2. When people decrease the burning of fossil fuels, the percentage of carbon dioxide .... (increases – decreases)

3. An increase in the burning of fossil fuels causes .... (acid rains – thunder)

3 (A) Write the scientific term:

- A gas fuel is formed from the decomposition of remains of marine animals under the Earth's surface.

(B) Give a reason for:

- There is no device that can completely use its input energy.

  - ....

Model (3)

15 Marks

1 Complete the following sentences from the words between brackets:

1. During cooking food, coal stores .... energy. (thermal – chemical)
2. The burning of coal and oil produces .... gas. (carbon dioxide – oxygen)
3. Acid rain is formed when .... combines with rain water. (carbon dioxide – oxygen)

2 Put (✓) or (✗):

1. When you put on the brakes of a bicycle, the friction causes some of the mechanical energy to be lost in the form of thermal energy. (   )
2. Pesticides used in farms are mixed with water, which causes water pollution. (   )
3. The potential energy operates the electric generator. (   )

3 What happens when ...s?

1. You rub your hands together. (Regarding energy conversion)
   - ....
2. The remains of dead living organisms were buried under the Earth's surface over millions of years.
   - ....

Science Model (4)

١٥ درجة

15 Marks

1 Choose the correct answer:

1. Which of the following chains best describes the energy transformations that occur when a flashlight that is powered by batteries is turned on?

   a) chemical → light → electrical b) electrical → light → chemical

   c) light → electrical → chemical d) chemical → electrical → light

2. Inside the electric power station, heating of .... produces steam.

   a) turbines b) generator c) water d) fuel

3. Smog emitted from automobile exhaust causes all of the following, except ....

   a) damaging the tissues of the respiratory system

   b) irritation of the eyes

   c) lungs irritation

   d) the maintenance of the nervous system

2 Complete the following sentences from the words between brackets:

1. In a battery of a toy car, ... energy is changed into electrical energy. (chemical – sound)
2. Curiosity rover is designed to explore .... (Mars – the moon)
3. .... can be used to make liquid fuel. (Corn – Charcoal)

3 (A) Give a reason for:

- Wind and water are considered as renewable sources of energy.

  - ....

(B) What happens when ...?

- Switch on an electric lamp. (Regarding the energy conversion)

  - ....

Model (5)

15 Marks

1 Choose the correct answer:

1. Thermal energy is produced during riding a bike when the tires touch the ground due to ....

   a) friction b) energy c) air resistance d) water resistance

2. All the following are from the types of fossil fuel, except ....

   a) natural gas b) coal c) oil d) charcoal

3. Remains of living organisms that were buried under the Earth's surface must be affected by .... to form fossil fuel.

   a) low pressure and high temperature
   b) high pressure and high temperature
   c) high pressure and low temperature
   d) low pressure and low temperature

2 Complete the following sentences from the words between brackets:

1. .... is a phenomenon in which the Earth's temperature increases, when carbon dioxide gas increases in air. (Global warming – Smog)

2. A calculator is powered by a solar cell that uses .... energy which transforms into electrical energy. (light – thermal)

3. .... is the main source of biofuel. (The Sun – Water)

3 (A) Give a reason for:

- Charcoal is a biofuel.

  - ....

(B) What is the difference between ...?

- A solar heater and an electric heater. (Regarding the input form of energy)

  - ....

Model (1)

15 Marks

1 Choose the correct answer:

1. .... is the input form of energy used to operate the television.

a) Thermal energy b) Sound energy

c) Electrical energy d) Light energy

2. Curiosity rover uses .... to operate while exploring Mars.

a) solar energy b) electricity c) long lasting batteries d) (a) and (c)

3. All the following actions don't conserve electrical energy, except ....

a) unplugging unused electrical devices

b) plugging many unused electrical devices

c) turning on all the house lights all the day long

d) leaving the television turned on all the day

2 Complete the following sentences from the words between brackets:

1. The electric stove uses .... (electrical – thermal) energy, while the solar stove produces .... (light – thermal) energy.

2. .... is produced from dead marine animals. (Oil – Charcoal)

3. Energy produced from fossil fuel is .... expensive than using renewable resources. (less – more)

3 (A) Give a reason for:

- Sound energy that is produced from an operating machine is wasted.

- Because it doesn't serve its function.

(B) What happens when ...?

- Humans increase using the wood of trees as a source of fuel.

- It will lead to the removal of forests (deforestation) and affect the environment in a negative way.

Model (2)

15 Marks

1 Choose the correct answer:

1. The cell phone converts chemical energy into .... energy, and .... energy.

   a) sound, light b) chemical, thermal c) potential, light d) thermal, potential

2. What happens to the energy that is not used in a device?

   a) It isn't converted into a different form of energy.

   b) It is stored for later use.

   c) It is released as waste heat or sound.

   d) It is transferred to another device.

3. All the following are non-renewable sources of energy, except ....

   a) coal b) water c) gasoline d) natural gas

2 Complete the following sentences from the words between brackets:

1. The lost form of energy in an electric sharpener is .... energy. (thermal – kinetic)

2. When people decrease the burning of fossil fuels, the percentage of carbon dioxide .... (increases – decreases)

3. An increase in the burning of fossil fuels causes .... (acid rains – thunder)

3 (A) Write the scientific term:

- A gas fuel is formed from the decomposition of remains of marine animals under the Earth's surface. (Natural gas)

(B) Give a reason for:

- There is no device that can completely use its input energy.

  - Because part of the input energy is converted into wasted energy in the form of heat and sound that don't serve the function of the device.

Model (3)

15 Marks

1 Complete the following sentences from the words between brackets:

1. During cooking food, coal stores .... energy. (thermal – chemical)
2. The burning of coal and oil produces .... gas. (carbon dioxide – oxygen)
3. Acid rain is formed when .... combines with rain water. (carbon dioxide – oxygen)

2 Put (✓) or (✗):

1. When you put on the brakes of a bicycle, the friction causes some of the mechanical energy to be lost in the form of thermal energy. (✓)
2. Pesticides used in farms are mixed with water, which causes water pollution. (✓)
3. The potential energy operates the electric generator. (✗)

3 What happens when ...s?

1. You rub your hands together. (Regarding energy conversion)

   - Kinetic energy is converted into thermal energy due to friction.

2. The remains of dead living organisms were buried under the Earth's surface over millions of years.

   - The buried remains changed to become coal, oil, and natural gas.

Model (4)

15 Marks

1 Choose the correct answer:

1. Which of the following chains best describes the energy transformations that occur when a flashlight that is powered by batteries is turned on?

   a) chemical → light → electrical
   b) electrical → light → chemical
   c) light → electrical → chemical
   d) chemical → electrical → light

2. Inside the electric power station, heating of .... produces steam.

   a) turbines
   b) generator
   c) water
   d) fuel

3. Smog emitted from automobile exhaust causes all of the following, except ....

   a) damaging the tissues of the respiratory system
   b) irritation of the eyes
   c) lungs irritation
   d) the maintenance of the nervous system

2 Complete the following sentences from the words between brackets:

1. In a battery of a toy car, ... energy is changed into electrical energy. (chemical – sound)
2. Curiosity rover is designed to explore .... (Mars – the moon)
3. .... can be used to make liquid fuel. (Corn – Charcoal)

3 (A) Give a reason for:

- Wind and water are considered as renewable sources of energy.

  - Because they are natural materials that can be renewed soon after using them.

(B) What happens when ...?

- Switch on an electric lamp. (Regarding the energy conversion)

  - Electrical energy is converted into light energy and wasted thermal energy.

Model (5)

15 Marks

1 Choose the correct answer:

1. Thermal energy is produced during riding a bike when the tires touch the ground due to ....

   a) friction b) energy c) air resistance d) water resistance

2. All the following are from the types of fossil fuel, except ....

   a) natural gas b) coal c) oil d) charcoal

3. Remains of living organisms that were buried under the Earth's surface must be affected by .... to form fossil fuel.

   a) low pressure and high temperature b) high pressure and high temperature

   c) high pressure and low temperature d) low pressure and low temperature

2 Complete the following sentences from the words between brackets:

1. .... is a phenomenon in which the Earth’s temperature increases, when carbon dioxide gas increases in air. (Global warming – Smog)

2. A calculator is powered by a solar cell that uses .... energy which transforms into electrical energy. (light – thermal)

3. .... is the main source of biofuel. (The Sun – Water)

3 (A) Give a reason for:

- Charcoal is a biofuel.

  - Because it is resulted from living organisms “plants” that can be cultivated.

(B) What is the difference between ...?

- A solar heater and an electric heater. (Regarding the input form of energy)

  - Solar heater uses (input energy) light energy coming from the Sun, while the electric heater uses (input energy) electrical energy.

المراجعة رقم (3)

اختبار شهر فبراير



Model Exam
on Concepts (3.1) & (3.2)

Total mark

$\frac{\quad}{15}$



1 (A) Choose the correct answer : *(5 marks)*

1. A form of biofuels which can be used in warming houses and cooking food is ....
   a. wood. b. wind.
   c. water. d. sand.
2. You feel warm when you rub your hands together, because .... energy converts into thermal energy.
   a. kinetic b. light
   c. electrical d. sound
3. All the following are from the harmful effects of acid rain, except ....
   a. the death of trees.
   b. the change in the chemical nature of soil.
   c. the increase in the Earth's temperature.
   d. the change in the chemical nature of lakes.
4. A form of fossil fuels that was formed from the decomposition of plant remains is ....
   a. wind. b. coal.
   c. wood. d. sand.

(B) Give a reason for the following :

A remote controlled toy car needs a battery to move from one place to another.

....

....

2 (A) Put (✓) or (✗) : *(5 marks)*

1. Grass and wood chips can be used to make a liquid biofuel. (   )
2. When pedalling a bike, the chemical energy in your body changes into kinetic energy. (   )
3. The movement of a turbine in the electric power station produces chemical energy. (   )
4. Energy may be destroyed inside different devices. (   )

(B) What happens if ...?

Pesticides mix with water of canals and rivers.

....

3 (A) Complete the following sentences : *(5 marks)*

1. The change of electrical energy into sound energy in the radio is an example that proves the law of ....
2. The generator in the electric power station changes .... energy into electrical energy.
3. In any energy chain, some of the energy is wasted in the form of ....
4. Curiosity is a robotic vehicle that is designed to explore the surface of ....

(B) Write the scientific term of each of the following :

1. The main source of most forms of energy on the Earth's surface. (.......................)
2. The energy resources that include wind energy, water and solar energy. (.......................)

March Tests

Total mark

$\frac{\quad}{15}$

Model 1

1 **(A) Write the scientific term of each of the following :** *(5 marks)*

1. They are fuels made from living organisms that can be planted such as plants. (........................)
2. Energy can neither be created nor destroyed, but only converted from one form of energy into another. (........................)
3. The wasted energy when using a mobile phone for a long time. (........................)
4. The device in the electric power station, that converts kinetic energy into electrical energy. (........................)

(B) Cross out the odd word :

Grass – Corn – Coal – Wood chips. (........................)

2 **(A) Choose from column (B) what suits it in column (A) :** *(5 marks)*

(A)	(B)
1. Pesticide	a. it causes dissolving some rocks.
2. Global warming	b. it causes damage of tissues of the human respiratory system.
3. Smog	c. it is used in farms that leads to soil pollution.
4. Acid rain	d. it is rising in the Earth's temperature due to increasing the amount of carbon dioxide gas.
	e. it is a renewable energy resource.

1. .... 2. .... 3. .... 4. ....

(B) Give a reason for the following :

Sound energy and thermal energy are considered as wasted energy in the blender.

....

3 **(A) Put (✓) or (✗) :** *(5 marks)*

1. Most of energy chains start with the energy of the moon. ( )
2. Mars rover Curiosity cannot move without electrical energy. ( )
3. There is a stored chemical energy inside the food we eat. ( )
4. Extreme cooling under the Earth's surface helps in the formation of oil. ( )

(B) What happens to ...?

The change of energy when you burn a piece of wood.

....

Model 2

1 (A) Choose the correct answer : *(5 marks)*

1. Which form of energy is not an output energy when a hair dryer is used ? ....
   - a. Kinetic energy.
   - b. Electrical energy.
   - c. Thermal energy.
   - d. Sound energy.
2. When you turn on a light bulb, the electrical energy travels through .... until reaching the bulb.
   - a. wires
   - b. glass
   - c. wood
   - d. plastic
3. All the following factors play an important role in the formation of fossil fuels, except ....
   - a. extreme pressure.
   - b. extreme heat.
   - c. strong wind.
   - d. rocks and sediment.
4. Which sentence shows the correct order of energy changes in a flashlight ? ....
   - a. Chemical → electrical → light.
   - b. Chemical → light → electrical.
   - c. Electrical → chemical → light.
   - d. Light → chemical → electrical.

(B) Give a reason for the following :

Although water is renewable energy resource, we must conserve it.

....

....

2 (A) Complete the following table : *(5 marks)*

	Gasoline	Wood
- Type of fuel :	.... (1)	.... (2) ....
- Type of energy resource :	.... (3)	.... (4) ....

(B) What happens if ...?

You shake a small bell with your hand. (according to the change of energy)

....

3 (A) Correct the underlined words : *(5 marks)*

1. When pedalling a bike, the <u>electrical</u> energy in your body is converted into kinetic energy. (......................)
2. The energy source in a toy car is the <u>fuel</u>. (......................)
3. We can use some <u>animals</u> to make a liquid biofuel. (......................)
4. The input energy in a soap dispenser is the <u>thermal</u> energy. (......................)

(B) Mention two negative impacts on the environment when the amount of carbon dioxide gas increases in air.

....

المراجعة رقم (4)

اختبار شهر فبراير








February Questions Bank

Question 01 choose the corret answer

CONCEPT 3.1

1. The energy source in a toy car is the ....
   a) engine b) tires c) battery d) fuel
   (suez 2023)

2. The idea of design and work of the robot that explores the surface of Mars depends on the idea of transforming ....
   a) electric to kinetic b) potential to kinetic c) light to electric d) kinetic to electric
   School book

3. In a battery of a toy car .... energy changes into electrical energy
   a) chemical b) sound c) thermal d) kinetic
   (Alex: montaza zone 2022)

4. Curiosity rover is designed to explore ....
   a) Mars planet b) the Moon c) the sun d) Earth planet
   (Alex.– Al Montaza zone(2)2023)

5. The .... on the rover curiosity convert solar energy into ...... energy which is used to change its batteries
   a) Solar panels – electrical b) Batteries – electrical c) Solar panels – sound d) Batteries – sound
   (alex. 2023)

6. The output energy in the Mars exploration vehicle is .... energy.
   a) electrical b) light c) kinetic d) solar
   (Menoufia 2023)

7. By rubbing hands .... energy is changed into thermal energy.
   a) chemical b) kinetic c) sound d) potential
   (Cairo . Rod El Farag2023)

8. A plugged-in lamp can turn .... energy to............. energy.
   a) electrical, light b) kinetic, light c) chemical, light d) chemical, heat
   (Ministry models 2022)

9. In the washing machine the .... energy is converted into kinetic and sound energy.
   a. thermal b. electrical c. light d. potential
   (Giza: Dokki Zone2023)

10. When you use the hand bell, the .... energy changed into sound energy.
    a. Electrical b. potential c. thermal d. kinetic
    (Ministry models 2022)

11. Energy produced from the electric bulb is .... energy.
    a. chemical b. sound c. light d. kinetic
    (El-Behira: Kafr El-Dawar 2023)

12. The output energy when playing drums is the .... energy.
    a. chemical b. light c. sound d. potential
    (Minia: Bani Mazar 2023)

13. The input energy when using the lamp is the .... energy.
    a. electrical b. potential c. kinetic d. thermal
    (Minia: Bani Mazar 2023)

14. Energy doesn't destroy, nor create from nothing, this indicates ....
    a. the draining of energy resources
    b. conservation and transformation of energy
    c. resources of energy are numerous
    d. destroying the energy resources
    School book

15. During riding a bike, some kinetic energy is converted into .... energy due to friction of bike's tire with the road.
    a. chemical b. potential c. thermal d. electrical
    (Ministry models 2022)

16. The produced energy from radio that reflects its main function is .... energy
    a. electric b. sound c. light d. chemical
    (Cairo: Heliopolis2023

17. Input energy when using the hair dryer is .... energy.
    a. electrical b. potential c. light d. kinetic
    (Cairo: El Waily Zone2023)

18. The output energy when using the hair dryers is the .... energy.
    a. electrical b. potential c. light d. thermal

19. The output energy that is not from the job of hair dryer is ....
   - a) chemical
   - b) sound
   - c) kinetic
   - d) light

   (Ismailia: Inspectorate2023)

20. The unusable energy that produced from the electric lamp .... energy
   - a) potential
   - b) chemical
   - c) thermal
   - d) light

   (Cairo: El Nozha2023)

21. The wasted energy in most devices in the form of .... energy.
   - a) electric
   - b) thermal
   - c) sound
   - d) kinetic

   (Menoufia 2023)

22. Both hair dryer and electric water kettle produce .... energy.
   - a) thermal
   - b) light
   - c) electric
   - d) potential

   (Alex: montaza zone 2022)

23. The stored energy inside the battery of a mobile phone is................ energy
   - a) electrical
   - b) light
   - c) chemical
   - d) sound

   (Alex: montaza zone 2023)

Question 02 put (true) or (false)

1. Mars is located a few meters away from Earth. (   )
   (Alex: montaza zone 2022)
2. Mars Curiosity can be operated from a distance (   )
   (Ministry models 2022)
3. A toy car can continue moving even after its battery runs out. (   )
   (Giza: Dokki Zone2023)
4. Rover Curiosity is used to explore the Jupiter. (   )
   (Alex. Al Montaza zone1)
5. Chemical energy is the energy that stored in food and battery. (   )
   (Cairo . Rod El Farag2023)
6. Energy may be destroyed inside different devices. (   )
   (Cairo: El Waily Zone2023)
7. Most of energy chains start with the moon (   )
   (Giza: Agoza Zone2023)
8. There is a stored chemical energy inside the food we eat. (   )
   (Giza: Agoza Zone2023)

9. Energy cannot be transformed from one form to another ( )
(Alex: montaza zone 2022)

10. Both electric bulb and electric heater produce thermal energy. ( )
(Alex: East zone 2022)

11. The energy chain of a burning candle is chemical energy converted into thermal energy & light energy ( )
(Giza 2022)

12. When pedalling a bike, the chemical energy in your body change to kinetic energy ( )
(Minia: Bani Mazar 2022)

13. Plants need sunlight to grow ( )
(Ministry models 2022)

14. The produced sound energy helps the hair dryer to do its function. ( )
(Ministry models 2022)

Question 03 Correct the underline words

1. Curiosity is a robotic vehicle that is designed to explore the surface of the <u>moon</u>. ( )
(Giza: Agoza Zone2023)

2. <u>Thermal</u> energy used to play a drum ( )
(Ministry models 2022)

3. To operate an electric mixer, we use <u>sound</u> energy ( )
(Ministry models 2022)

4. <u>Light</u> energy is stored inside the battery of mobile phone. ( )
(Qena: Science Inspectorate2023)

Question 04 Complete the following sentences

1. On Mars planet, Curiosity robot can be operated for a long period of time by using ....energy from sunlight that is converted into ....energy used to recharge its batteries
(Cairo - Zeitoun Zone 2023)

2. Solar panels are used to generate ....energy
(Ismailia: Inspectorate2023)



3. Most of the energy we use is produces inside the ....
(Ismailia: Inspectorate2022)

4. The energy that is produced from the battery and used to operate a toy car is ....energy.
(Alex: East zone 2022)

5. Light energy is converted into ....energy which is stored in the form of sugar inside the trees.
(Dakahlia: 2023)

6. ....is the main source of energy on the Earth's surface.
(Dakahlia: 2023)

7. Energy can neither be ....nor ...., but only ....from one form to another
(Cairo 2023)

8. To operate an electric mixer, we use ....energy.
(Alex: East zone 2022)

9. The electric lamp converts ....energy into light and heat energy.
(Alex: East zone 2022)

10. The energy can be ....from one form to another
(Cairo: El Waily Zone2023)

11. In hand bell, kinetic energy is converted into ....energy.
(Alexandria: Middle Zone2023)

12. In the washing machine electrical energy converted into ....energy.
(Suez: South Zone2023)

13. When you ride a bicycle, the ....energy stored in your body is converted into ....energy which causes the bicycle to move
(Behaira 2022)

14. Energy produced from the radio which helps the device do its main function is ....energy
(El-Behira: Kafr El-Dawar 2023)

15. The mobile phone converts chemical energy stored in its batteries into ....energy and ....energy.
(Qalyubiyya 2023)

Question 05 Write the scientific term

1. A robot vehicle that can be controlled from a distance and is used to explore the surface of mars ( )
(Ismailia: Inspectorate2023)

2. The form of energy that is stored in battery of a remote-control toy cars. ( ) (Ministry models 2022)

3. The energy produced from playing guitar. ( ) Giza 2023)

4. Energy is neither created nor destroyed, but it changes from one form to another. ( ) (Dakahlia: 2023)

5. The energy used to play a drum. ( ) (Minia: Bani Mazar 2023)

6. A kind of energy that is produced from the electrical heater and burning coal . ( ) (Alex: montaza zone 2022)

7. A device used to convert electrical energy into light energy ( ) (Alex: East zone 2022)

8. The energy produced when the wood of trees is burned. ( ) (Alex: East zone 2022)

9. Energy that always produced due to friction. ( ) (Ministry models 2022)

10. The wasted energy of a computer . ( ) (Ministry models 2022)

11. The energy that is produced from the blender and helps it in doing its job. ( ) (Al-Azhar Al-Sharif 2023)

Question 06 Give reason for each of the following

1. Mars rover curiosity operates for long period of time on Mars without any need to be charged

....

Question 07 What happens if

1. On shaking a hand bell. (according to the change of energy)

....

(Cairo . Rod El Farag2023)

2. On turning an electric lamp. (according to changing in energy)

....

(Cairo: El Waily Zone2023)

3. The change of energy when you turn on the television

....

(Cairo: El Nozha2023)

4. You put your hands near a lighted lamp.

....

(Minia: Bani Mazar 2023)

5. Rubbing your hand together (According to the change of energy)

.... (Menoufia, 2022)

Question 08 Answer the following questions

1. **Complete the following energy chain in the hair dryer.** (Cairo: El Nozha2023)

.... from the Sun → Chemical energy (coal) → Thermal &kinetic energies → .... goes through wire → Thermal, sound & kinetic energies

2. **Complete the following table:** (Dakahlia: 2023)

Device	Input energy	Output energy
1. Electric heater:	....	....
2. Hand bell:	....	....

3. **Mention energy changing in the following table:** (El-Behira: Kafr El-Dawar 2023)

Device	Consumed (input) energy	Produced (output) energy
Fan:	....	....

4. **Complete the following figure:** (Menoufia 2023)

.... --Used in--> Electric lamp --produce--> .... energy
.... energy

5 **Mention the input and output energies of the opposite device.** (Minia: Bani Mazar 2023)

Input energy is ....

Output energy is ....

6 **Mention a device that convert electric energy into kinetic and sound energy**

(Qena 2023)

Question 01 choose the corret answer

CONCEPT 3.2

1. Among forms of fuel that present in car fuel stations are ....
   - a) gasoline and wood
   - b) natural gas and coal
   - c) wood and coal
   - d) natural gas and gasoline
2. All of the following are forms of fuel, except ....
   - a) natural gas
   - b) gasoline
   - c) coal
   - d) glass
3. .... is considered as the main resource of energy on the Eath's surface
   - a) Gasoline
   - b) the sun
   - c) natural gas
   - d) the moon
4. Wood is considered as ....
   - a) bio fuel
   - b) fossil fuel
   - c) liquid fuel
   - d) gaseous fuel
5. .... is a type of biofuel which is made of wood.
   - a) Coal
   - b) Oil
   - c) Charcoal
   - d) Natural gas
6. All the following are forms of fossil fuel, except ....
   - a) water
   - b) coal
   - c) natural gas
   - d) oil
7. Extreme heat and pressure under the earth's surface has an important role in forming ....
   - a) wood
   - b) wind
   - c) fossil fuel
   - d) biofuel
8. Fossil fuel is extracted from ....
   - a) the Earth's surface
   - b) the underground
   - c) the food
   - d) the water
9. Fossil fuels need .... to be formed under the Earth's surface.
   - a) five years
   - b) ten years
   - c) hundreds of years
   - d) millions of years

Question 02 put (true) or (false)

1. Both coal and wood produce thermal energy when they are burned. ( )
2. You need gasoline to move a bicycle ( )
3. When fuel is burned, it produces thermal energy. ( )
4. Green plants are one of the nonrenewable resources of energy. ( )
5. Water and gasoline are two renewable resource of energy ( )
6. We have to conserve all forms of fuel. ( )
7. Coal was formed from the sea animals remains. ( )
8. Charcoal is formed from decomposition of remains of ancient plants ( )
9. Biofuels are from nonrenewable resources of energy. ( )
10. The Sun is the main source of forming both biofuel and fossil fuel ( )
11. Oil and coal are considered as nonrenewable resources. ( )
12. Biofuel is one of non-renewable resources of energy. ( )
13. We can make liquid fuel from wood chips and grass ( )
14. Some types of plants can be used to make a liquid fuel. ( )

Question 04 Complete the following sentences

1. When fossil fuel is burned, it produces...................... energy.
2. Some forms of fuel can be used in cooking food such as wood and ....
3. Fuel is used as a source of .... energy.
4. .... is used as source of thermal energy in homes and cars.
5. We need .... energy for cooking food and warming houses.
6. Wood and .... are examples of biofuel, while .... and .... are examples of fossil fuel.
7. .... is a renewable source of energy.
8. Coal and oil are considered as .... resources of energy.
9. Corn and wood are .... fuel.
10. Fossil fuel is considered as .... resources of energy

Question 04 write scientific term for each of the following

1. Any substance that produces thermal energy when it is burned. ( )
2. The energy produced when the wood is burned ( )
3. It is the main source of most forms of energy on the Earth's surface ( )
4. They are fuels made from living organisms that can be planted ( )
5. It is a form of fossil fuel that was formed from dead marine animals ( )
6. It is a form of fossil fuel that was formed from dead plants under the effect of extreme heat and pressure ( )

Question 05 Give Reason for each of the following

1. Using wood of trees as a fuel has negative effects on the environment

....

2. Wood is considered as a fuel.

....

3. We must conserve the fossil fuels

....

Question 06 What happens if ?

1. The car movement if fuel runs out in a car.

....

2. The remains of marine were buried under the Erath's surface over millions of years

....

Question 07 cross the odd word

1. Wood - Coal - Oil - Natural gas.

Question 08 Answer the following questions

B) Give an example:

1.Renewable energy resource

2.Fossil fuel.

انتهت الأسئلة مع أطيب الامنيات بالنجاح والتوفيق





Answers








February Questions Bank



Question 01 choose the corret answer

CONCEPT 3.1

1. The energy source in a toy car is the ....
   - (a) engine (b) tires (c) battery (d) fuel

   (suez 2023)

2. The idea of design and work of the robot that explores the surface of Mars depends on the idea of transforming ....
   - (a) electric to kinetic (b) potential to kinetic (c) light to electric (d) kinetic to electric

   School book

3. In a battery of a toy car .... energy changes into electrical energy
   - (a) chemical (b) sound (c) thermal (d) kinetic

   (Alex: montaza zone 2022)

4. Curiosity rover is designed to explore ....
   - (a) Mars planet (b) the Moon (c) the sun (d) Earth planet

   (Alex.– Al Montaza zone(2)2023)

5. The .... on the rover curiosity convert solar energy into ...... energy which is used to change its batteries
   - (a) Solar panels – electrical (b) Batteries – electrical (c) Solar panels – sound (d) Batteries – sound

   (alex. 2023)

6. The output energy in the Mars exploration vehicle is .... energy.
   - (a) electrical (b) light (c) kinetic (d) solar

   (Menoufia 2023)

7. By rubbing hands .... energy is changed into thermal energy.
   - (a) chemical (b) kinetic (c) sound (d) potential

   (Cairo . Rod El Farag2023)

8. A plugged-in lamp can turn .... energy to............. energy.
   - (a) electrical, light (b) kinetic, light (c) chemical, light (d) chemical, heat

   (Ministry models 2022)

9. In the washing machine the .... energy is converted into kinetic and sound energy.
   - (a) thermal
   - (b) <u>electrical</u>
   - (c) light
   - (d) potential

(Giza: Dokki Zone2023)

10. When you use the hand bell, the .... energy changed into sound energy.
   - (a) Electrical
   - (b) potential
   - (c) thermal
   - (d) <u>kinetic</u>

(Ministry models 2022)

11. Energy produced from the electric bulb is .... energy.
   - (a) chemical
   - (b) sound
   - (c) <u>light</u>
   - (d) kinetic

(El-Behira: Kafr El-Dawar 2023)

12. The output energy when playing drums is the .... energy.
   - (a) chemical
   - (b) light
   - (c) <u>sound</u>
   - (d) potential

(Minia: Bani Mazar 2023)

13. The input energy when using the lamp is the .... energy.
   - (a) <u>electrical</u>
   - (b) potential
   - (c) kinetic
   - (d) thermal

(Minia: Bani Mazar 2023)

14. Energy doesn't destroy, nor create from nothing, this indicates ....
   - (a) the draining of energy resources
   - (b) <u>conservation and transformation of energy</u>
   - (c) resources of energy are numerous
   - (d) destroying the energy resources

School book

15. During riding a bike, some kinetic energy is converted into .... energy due to friction of bike's tire with the road.
   - (a) chemical
   - (b) potential
   - (c) <u>thermal</u>
   - (d) electrical

(Ministry models 2022)

16. The produced energy from radio that reflects its main function is .... energy
   - (a) electric
   - (b) <u>sound</u>
   - (c) light
   - (d) chemical

(Cairo: Heliopolis2023

17. Input energy when using the hair dryer is .... energy.
   - (a) <u>electrical</u>
   - (b) potential
   - (c) light
   - (d) kinetic

(Cairo: El Waily Zone2023)

18. The output energy when using the hair dryers is the .... energy.
   - (a) electrical
   - (b) potential
   - (c) light
   - (d) <u>thermal</u>

19. The output energy that is not from the job of hair dryer is ....
   - a) chemical
   - b) <u>sound</u>
   - c) kinetic
   - d) light

(Ismailia: Inspectorate2023)

20. The unusable energy that produced from the electric lamp .... energy
   - a) potential
   - b) chemical
   - c) <u>thermal</u>
   - d) light

(Cairo: El Nozha2023)

21. The wasted energy in most devices in the form of .... energy.
   - a) electric
   - b) <u>thermal</u>
   - c) sound
   - d) kinetic

(Menoufia 2023)

22. Both hair dryer and electric water kettle produce .... energy.
   - a) <u>thermal</u>
   - b) light
   - c) electric
   - d) potential

(Alex: montaza zone 2022)

23. The stored energy inside the battery of a mobile phone is................ energy
   - a) electrical
   - b) light
   - c) <u>chemical</u>
   - d) sound

(Alex: montaza zone 2023)

Question 02 put (true) or (false)

1. Mars is located a few meters away from Earth. ✗
(Alex: montaza zone 2022)
2. Mars Curiosity can be operated from a distance ✓
(Ministry models 2022)
3. A toy car can continue moving even after its battery runs out. ✗
(Giza: Dokki Zone2023)
4. Rover Curiosity is used to explore the Jupiter. ✗
(Alex. Al Montaza zone1)
5. Chemical energy is the energy that stored in food and battery. ✓
(Cairo . Rod El Farag2023)
6. Energy may be destroyed inside different devices. ✗
(Cairo: El Waily Zone2023)
7. Most of energy chains start with the moon ✗
(Giza: Agoza Zone2023)
8. There is a stored chemical energy inside the food we eat. ✓
(Giza: Agoza Zone2023)




9. Energy cannot be transformed from one form to another ✖
(Alex: montaza zone 2022)


10. Both electric bulb and electric heater produce thermal energy. ✔

(Alex: East zone 2022)

11. The energy chain of a burning candle is chemical energy converted into thermal energy & light energy ✔

(Giza 2022)

12. When pedalling a bike, the chemical energy in your body change to kinetic energy ✔

(Minia: Bani Mazar 2022)

13. Plants need sunlight to grow ✔

(Ministry models 2022)

14. The produced sound energy helps the hair dryer to do its function. ✖

(Ministry models 2022)


Question 03 Correct the underline words

1. Curiosity is a robotic vehicle that is designed to explore the surface of the <u>moon</u>. — **Mars**
(Giza: Agoza Zone2023)

2. <u>Thermal</u> energy used to play a drum — **The sun**
(Ministry models 2022)

3. To operate an electric mixer, we use <u>sound</u> energy — **kinetic**
(Ministry models 2022)

4. <u>Light</u> energy is stored inside the battery of mobile phone. — **<u>electric</u>**
(Qena: Science Inspectorate2023)

Question 04 Complete the following sentences

1. On Mars planet, Curiosity robot can be operated for a long period of time by using <u>solar</u> energy from sunlight that is converted into <u>electrical</u> energy used to recharge its batteries
(Cairo - Zeitoun Zone 2023)

2. Solar panels are used to generate <u>electrical</u> energy
(Ismailia: Inspectorate2023)

3. Most of the energy we use is produces inside the <u>sun</u>

(Ismailia: Inspectorate2022)

4. The energy that is produced from the battery and used to operate a toy car is <u>electrical</u> energy.

(Alex: East zone 2022)

5. Light energy is converted into <u>chemical</u> energy which is stored in the form of sugar inside the trees.

(Dakahlia: 2023)

6. <u>The sun</u> is the main source of energy on the Earth's surface.

(Dakahlia: 2023)

7. Energy can neither be <u>created</u> nor <u>destroyed</u>, but only <u>changed</u> from one form to another

(Cairo 2023)

8. To operate an electric mixer, we use <u>electrical</u> energy.

(Alex: East zone 2022)

9. The electric lamp converts <u>electrical</u> energy into light and heat energy.

(Alex: East zone 2022)

10. The energy can be <u>changed</u> from one form to another

(Cairo: El Waily Zone2023)

11. In hand bell, kinetic energy is converted into <u>sound</u> energy.

(Alexandria: Middle Zone2023)

12. In the washing machine electrical energy converted into <u>kinetic</u> energy.

(Suez: South Zone2023)

13. When you ride a bicycle, the <u>chemical</u> energy stored in your body is converted into <u>kinetic</u> energy which causes the bicycle to move

(Behaira 2022)

14. Energy produced from the radio which helps the device do its main function is <u>sound</u> energy

(El-Behira: Kafr El-Dawar 2023)

15. The mobile phone converts chemical energy stored in its batteries into <u>light</u> energy and <u>sound</u> energy.

(Qalyubiyya 2023)

Question 05 Write the scientific term

1. A robot vehicle that can be controlled from a distance and is used to explore the surface of mars — **mars rover** / **curiosity robot**

(Ismailia: Inspectorate2023)

(2) The form of energy that is stored in battery of a remote-control toy cars.

Chemical energy (Ministry models 2022)

(3) The energy produced from playing guitar.

Sound energy Giza 2023)

(4) Energy is neither created nor destroyed, but it changes from one form to another.

Law of conservation of energy (Dakahlia: 2023)

(5) The energy used to play a drum.

Kinetic energy (Minia: Bani Mazar 2023)

(6) A kind of energy that is produced from the electrical heater and burning coal .

Thermal energy (Alex: montaza zone 2022)

(7) A device used to convert electrical energy into light energy

Electric lamp (Alex: East zone 2022)

(8) The energy produced when the wood of trees is burned.

Thermal energy (Alex: East zone 2022)

(9) Energy that always produced due to friction.

thermal energy (Ministry models 2022)

(10) The wasted energy of a computer .

Thermal energy (Ministry models 2022)

(11) The energy that is produced from the blender and helps it in doing its job.

kinetic energy (Al-Azhar Al-Sharif 2023)

Question 06 Give reason for each of the following

(1) Mars rover curiosity operates for long period of time on Mars without any need to be charged

Because of solar panels that use sunlight to recharge its batteries

Question 07 What happens if

(1) On shaking a hand bell. (according to the change of energy)

Kinetic energy changes into sound energy

(Cairo . Rod El Farag2023)

On turning an electric lamp. (according to changing in energy)

2. The electrical energy changes into light and thermal energies (Cairo: El Waily Zone2023)

3. The change of energy when you turn on the television
Electrical energy changes into sound, light and thermal energies (Cairo: El Nozha2023)

4. You put your hands near a lighted lamp.
You feel warm, because some electrical energy is converted into thermal energy (Minia: Bani Mazar 2023)

5. Rubbing your hand together (According to the change of energy)
Kinetic energy changes into thermal energy (Menoufia, 2022)

Question 08 Answer the following questions

1. **Complete the following energy chain in the hair dryer.** (Cairo: El Nozha2023)

light from the Sun → Chemical energy (coal) → Thermal &kinetic energies → Electrical energy goes through wire → Thermal, sound & kinetic energies

2. **Complete the following table:** (Dakahlia: 2023)

Device	Input energy	Output energy
1. Electric heater:	Electrical energy	Thermal energy
2. Hand bell:	Kinetic energy	Sound energy

3. **Mention energy changing in the following table:** (El-Behira: Kafr El-Dawar 2023)

Device	Consumed (input) energy	Produced (output) energy
Fan:	Electrical energy	Kinetic energy

4. **Complete the following figure:** (Menoufia 2023)

Electrical energy --Used in--> Electric lamp --produce--> light energy, thermal energy

5.

Mention the input and output energies of the opposite device. (Minia: Bani Mazar 2023)

Input energy is electrical energy

Output energy is thermal energy



6 **Mention a device that convert electric energy into kinetic and sound energy**

Washing machine – blender (Qena 2023)

Question 01 choose the corret answer

CONCEPT 3.2

1. Among forms of fuel that present in car fuel stations are ....
   - (a) gasoline and wood (b) natural gas and coal (c) wood and coal (d) natural gas and gasoline
2. All of the following are forms of fuel, except ....
   - (a) natural gas (b) gasoline (c) coal (d) glass
3. .... is considered as the main resource of energy on the Eath's surface
   - (a) Gasoline (b) the sun (c) natural gas (d) the moon
4. Wood is considered as ....
   - (a) bio fuel (b) fossil fuel (c) liquid fuel (d) gaseous fuel
5. .... is a type of biofuel which is made of wood.
   - (a) Coal (b) Oil (c) Charcoal (d) Natural gas
6. All the following are forms of fossil fuel, except ....
   - (a) water (b) coal (c) natural gas (d) oil
7. Extreme heat and pressure under the earth's surface has an important role in forming ....
   - (a) wood (b) wind (c) fossil fuel (d) biofuel
8. Fossil fuel is extracted from ....
   - (a) the Earth's surface (b) the underground (c) the food (d) the water
9. Fossil fuels need .... to be formed under the Earth's surface.
   - (a) five years (b) ten years (c) hundreds of years (d) millions of years

Question 02 put (true) or (false)

1. Both coal and wood produce thermal energy when they are burned. ✔
2. You need gasoline to move a bicycle ✘
3. When fuel is burned, it produces thermal energy. ✔
4. Green plants are one of the nonrenewable resources of energy. ✘
5. Water and gasoline are two renewable resource of energy ✘
6. We have to conserve all forms of fuel. ✔
7. Coal was formed from the sea animals remains. ✘
8. Charcoal is formed from decomposition of remains of ancient plants ✘
9. Biofuels are from nonrenewable resources of energy. ✘
10. The Sun is the main source of forming both biofuel and fossil fuel ✔
11. Oil and coal are considered as nonrenewable resources. ✔
12. Biofuel is one of non-renewable resources of energy. ✘
13. We can make liquid fuel from wood chips and grass ✔
14. Some types of plants can be used to make a liquid fuel. ✔

Question 04 Complete the following sentences

1. When fossil fuel is burned, it produces thermal energy.
2. Some forms of fuel can be used in cooking food such as wood and coal
3. Fuel is used as a source of thermal energy.
4. natural gas is used as source of thermal energy in homes and cars.
5. We need thermal energy for cooking food and warming houses.
6. Wood and charcoal are examples of biofuel, while oil and coal are examples of fossil fuel.
7. water is a renewable source of energy.
8. Coal and oil are considered as nonrenewable resources of energy.
9. Corn and wood are bio fuel.
10. Fossil fuel is considered as nonrenewable resources of energy

Question 04 write scientific term for each of the following

1. Any substance that produces thermal energy when it is burned. **Fuel**
2. The energy produced when the wood is burned **Thermal energy**
3. It is the main source of most forms of energy on the Earth's surface **sun**
4. They are fuels made from living organisms that can be planted **Biofuel**
5. It is a form of fossil fuel that was formed from dead marine animals **Oil**
6. It is a form of fossil fuel that was formed from dead plants under the effect of extreme heat and pressure **Coal**

Question 05 Give Reason for each of the following

1. Using wood of trees as a fuel has negative effects on the environment
   Because continuity of cutting down trees leads to deforestation
2. Wood is considered as a fuel.
   Because wood produces thermal energy when it is burned
3. We must conserve the fossil fuels
   Because fossil fuels are formed over millions of years, so they cannot be replaced as we use them

Question 06 What happens if ?

1. The car movement if fuel runs out in a car.
   The car movement decreases until it stops
2. The remains of marine were buried under the Erath's surface over millions of years
   Formation of oil

Question 07 cross the odd word

 Wood - Coal - Oil - Natural gas. Wood (biofuel)

Question 08 Answer the following questions

B) Give an example:

1.Renewable energy resource water

2.Fossil fuel. gasoline

انتهت الأسئلة مع أطيب الامنيات بالنجاح والتوفيق

حمل الآن

مجانا وحصريا

المراجعة رقم (5)

اختبار شهر فبراير





Concept (3-1)-Devices and Energy

-As we know, most of energy we use is produced inside the sun, and energy can be changed from one form to another.

-So, what types of energy transformations are required for sunlight to operate devices?

-Different devices such as solar cell changes the energy of sunlight into electrical energy which is used to operate devices.

-Energy in Remote-Controlled cars:

Batteries inside the remote-controlled toys are the resource of chemical energy, as this energy is converted into electrical energy, which is converted into kinetic energy or sound energy.

Chemical Energy (inside batteries)  Electrical Energy (inside toy)  Kinetic and sound energies

-When the batteries run out of charge, they can be:

1-Recharged by connecting the device to a nearby charger.
2-Replacing the old batteries with new ones.




-Mars Rover Curiosity:

-It is one of the most well-known robots which travels on the surface of Mars.
-It uses solar panels and batteries as a source of energy.
-It converts solar energy into electrical energy, which is used to charge the rover's batteries.

The electrical energy from the batteries is also transformed into kinetic energy and thermal energy as the vehicle moves across Mars surface.

Energy Chain

Energy chain: is a way to describe the energy flow that occurs when we use different devices and it is often starts with the sun.

1-Energy chain when eating food:

Light energy (From the Sun) → Converted into → Chemical energy (Stored inside the plant) → Converted into → Kinetic energy (Movement of the human body)



2-Energy chain when heating a pot of water over fire:

Light energy (From the Sun) → Converted into → Chemical energy (Stored inside the trees) → Converted into → Thermal energy (When burning the wood of trees to heat the water inside the pot)

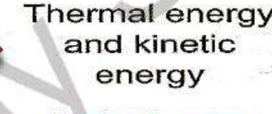


3-Energy chain in hair dryer:

Light energy (From the Sun)



Chemical energy (In coal formed from the remains of dead trees)



Thermal energy and kinetic energy (In electric power stations)



Converted into

Electrical energy (Goes through electric wires)



Thermal energy, kinetic energy and sound energy (In the hair dryer)



4-Energy chain while riding a bike:

Chemical energy (In food) → Kinetic energy (In the bike) → Thermal energy (Tire friction with the road)

5-Energy chain when a light bulb is switched on:

Electrical energy (In electrical wires)



Light energy and thermal energy (In the light bulb)

6-Energy chain in the hair dryer:

Electrical energy (In electric wires) → Thermal, sound and kinetic energies (In the hair dryer)



7-Energy chain in the Mobile Phone:







Electrical energy (When charging the mobile) → Chemical energy (Stored in the mobile battery) → Sound and light energies (In the mobile phone)

8-Energy chain in the Blender :

Light Energy → Chemical Energy → Thermal and kinetic Energy

↓

Electrical Energy







Kinetic Energy

(Help Blender to do its job)

Sound and thermal Energy

(Do not help the blender do its job)

-Some of the energy is wasted in different forms, while travelling through the energy chain, where most of the lost energy leaks out in the form of heat.

Energy and Everyday Devices

Device	Function	Consumed Energy (input)	Produced Energy (Output)
Hair dryer	Drying Hair	Electrical Energy	Thermal, kinetic and sound energy
Soap dispenser (Detergent bottle)	Getting Soap up the bottle	Potential Energy	Kinetic energy
Washing machine	Washing Clothes	Electrical Energy	Kinetic and sound energy
Electric bulb	Lighting	Electrical Energy	Light energy and thermal energy
Battery powered clock	Showing the time	Chemical energy	Kinetic energy
Flashlight	Lighting	Chemical energy	Light energy and thermal energy

The law of conservation of energy:
Energy can neither be created nor destroyed, but only converted from one form of energy into another.

Device	Function	Input	Output
Hand bell	Alerting	Kinetic Energy	Sound Energy
Electric heater	Warming	Electrical Energy	Thermal Energy
Speakers	Audio Output	Electrical Energy	Sound Energy
Electric iron	Ironing Clothes	Electrical Energy	Thermal energy
Drum	Playing Music	Kinetic Energy	Sound Energy
Mobile phone	Ringing, illuminating and processing information	Electrical Energy	Light and sound Energies.

-All the energy that enters a device must finally come out of it, either in the same form or in other forms.

-All devices have energy coming in them (called input energy) and coming out of them (called output energy).



-When we track the energy flow in any device, we notice that sometimes the converted energy does not help the device do the function for which it was designed, such as the sound energy produced by the hair dryer.

-Noise from hair drier (sound energy) is considered as "wasted energy." (G.R) because sound energy does not help the device do its main function.

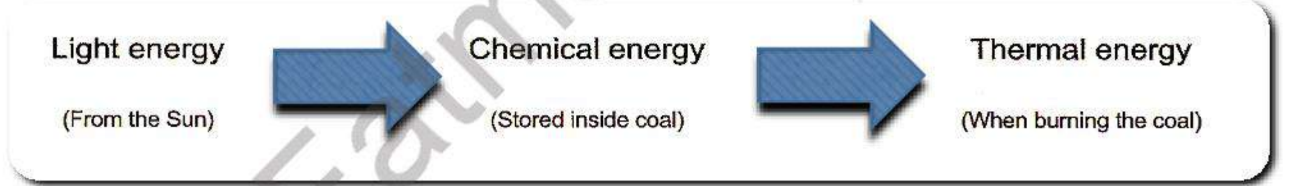
-When using a mobile phone for a long time, some energy is wasted as thermal energy, that does not help the device do its main functions.

Concept (3-2)-About Fuel

-Fuel is one of the most important resources of energy that humans depend on to get energy.

Fuel: It is any substance that produces thermal energy when it is burned.

-Fuel is used for several purposes G.R. because we can use fuels in warming our houses or supply cars with energy to move.
-Fuel is important to move cars G.R. because fuel is burned inside the car engine producing thermal energy that is converted into kinetic energy causes the car to move.



Uses of some different forms of fuel	
Coal and wood	They are used in cooking food and warming
Gasoline and natural gas	They are used in generating electricity and operating all means of transportation

Types of Fuel



A-Biofuel

Biofuel: They are fuels made from living organisms that can be planted

-**Examples:** Wood and charcoal (is made from wood).
-Some types of plants such as grass, corn and wood chips can be used to make **a liquid fuel**
-**Biofuels are renewable fuels G.R.** because they can be continually renewed as plants grow.
-**Although biofuels are renewable energy resources, they should be conserved G.R.** because getting biofuels requires cutting trees and cutting trees at a faster rate than they can grow leads to deforestation.

A-Fossil fuels

Fossil Fuels: They are fuels formed from the remains of plants and animals that were buried and decomposed over a long period of time.

-**Examples:**
-**Oil and natural gas** were formed from the decomposition of the **remains of ancient see animals.**
-**Coal** was formed from the decompositions of the remains of **ancient plants.**

-**Fossil fuels are nonrenewable G.R.** because they are gone and cannot be easily renewed.

Formation of coal

-Millions of years ago, large areas of the Earth were covered in swamps with a lot of plants growing nearby.

-When those plants died, their remains were decomposed and covered by hundreds of meters of mud and rocks.

-Due to the effect of the Earth's heat and pressure, those remains were turned into coal.

-The original source of energy in biofuel and fossil fuels is the light energy of the **sun**.



Formation of Oil

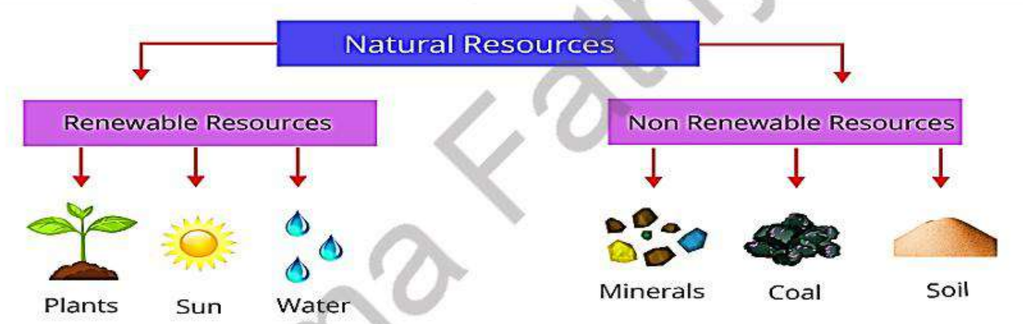
When the marine creatures died their remains settled on the ocean floor.



Over millions of years' layers of sediments and rocks covered the remains of those sea creatures these layers pressed down causing extreme **heat** and **pressure**

Over time, as a result of extreme heat and pressure, those remains converted into oil.

Nonrenewable energy resources	Renewable energy resource:
It is a natural material that is used faster than it can be replaced	It is a natural material that can be replaced soon after it is used.



-The following table shows the differences between oil and water and how to conserve each of them:

Oil	Water
nonrenewable energy resource.	renewable energy resource.
Conservation of oil: -Reducing the use of private vehicles. -Using of public transportation	**Conservation of water:** -Avoid wasting or polluting water. -Growing plants that do not need large amounts of water for irrigation

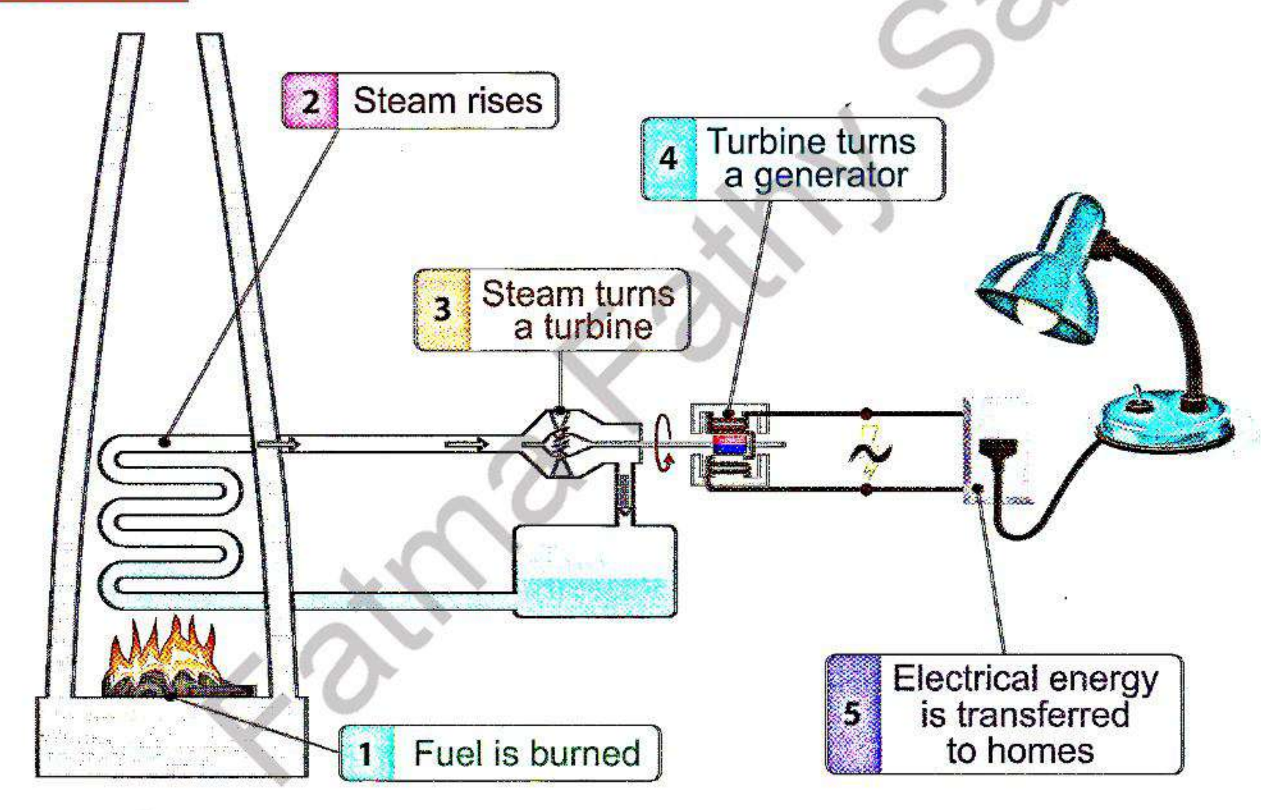
-Whatever the resource of energy is renewable or nonrenewable, we should conserve the energy through many ways such as:

1-Turning off lights when they are not needed

2-Unplugging electrical appliances when they are not used.

How fossil fuel is used to produce electricity

1- Fuel is burned: it produces thermal energy.
2-Steam rises: the thermal energy is used to heat water and make steam.
3-Steams turns turbines: The steam is directed through pipes and used to turn turbine.
4-Turbines turns a generator: The movement of turbine produces kinetic energy which is used to operate a generator.
-When the generator is turned on, it converts the kinetic energy into electrical energy.
5-Finally, the electrical energy is transferred through wires to homes to operate different devices.



Big City Environmental problems

Some causes of pollution in big cities

1-Smog produced from burning of fuels pollutes the air.
2-Pesticides used in farms can be carried into water in canals and rivers when rain falls, this leads to pollution of soil and water.
3-Chemicals used in many factories pollute the air and also the nearby water and soil.

Some effects of air pollution on human's health

-Smog from cars causes irritation of human's eyes and lungs.
-Smog is full of small particles that the human breathes in, these particles irritate the lungs, causing the damage of tissues of the respiratory system.

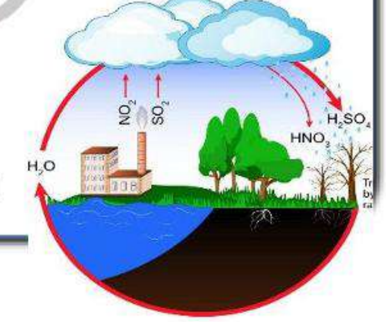
Burning fuels and pollution

Harms from burning fossil fuels

-Burning of coal and oil produces carbon dioxide gas which causes:

Acid rain

Carbon dioxide gas can combine with water in the air to form acid rain that leads to:
-The death of trees
-The change in the chemical nature of lakes and kill fish.
-The change in the chemical nature of soil.
-Dissolving some rocks including the rocks used for building



Global warming

Increasing the amount of carbon dioxide gas in the air forms a layer in the atmosphere that traps heat on Earth causing a slow rise in the Earth's temperature which is known as global warming.



How to reduce rain and global warming?

We have to reduce our usage of energy to reduce the amount of burning fossil fuels, so the amount of carbon dioxide and other pollutants in the air will decrease.





Conservation of fossil fuels

Fossil fuels will run out from the earth if we don't reduce using them as there is limited amount of fossil fuels available on Earth.

Some ways to conserve fossil fuels:

1-Walking or using bicycle instead of driving a car.
2-Turning off the lights when you are not in the room.
3-Replacing fossil fuels with renewable energy resources such as water, wind, and solar energy.

Disadvantages of using fossil fuels to produce energy:

-Air pollution
-Global warming which raises the temperature of Earth and changes its climate.

Renewable and nonrenewable energies resources

Renewable	Nonrenewable
Replaced soon after it is used.	Used faster than it can be replaced.
Examples	
Solar energy	Coal
Water	Gasoline
Charcoal	Oil
Wood	Natural gas
Wind	

Second Term

February Exam Revision

Complete the following:

1-In any energy chain, some of the energy is lost in the form of ....
2-Wood and .... are examples of biofuel, while .... and .... are examples of fossil fuels.
3-When you ride a bicycle, the .... energy stored in your body is converted into .... energy which cause the bicycle to move.
4-When we expose our bodies to the sun we feel ....
5-The energy can be .... from one form to another.
6-The change of electrical energy into sound energy in the radio is an example that proves the law of ....
7-The natural resources that can be replaced shortly after being used are called .... resources energy.
8-The output energy of burning coal is .... energy, which is used to produce .... energy in electric power station in order to generate electrical energy.
9-The output energy that helps the washing machine to do its main function is .... energy, and this energy is considered the .... energy of the hand bell.
10-The input energy of the toy car is .... energy that is stored in its battery and then converted into .... Energy in its wires to operate its motor.
11-The generator in electric power station changes .... energy into .... energy.
12-Remote controlled of toy cars changes .... energy stored in its batteries into .... energy that is turn changes into .... energy which is used to move the car.
13-When you rub your hands together, the .... energy is converted into .... energy.
14-Coal, ... and .... can be used in generating electricity.
15-To operate an electric mixer we use............ energy.
16-When your cell phone is out of charge, you must recharge its................. to operate again.

17-Some calculators can change solar energy into ………………… energy by using …………………..

18-On planet Mars, curiosity robot is operated by using ……………. energy from sunlight that is converted into ……………… energy used to recharge its batteries.

19-The unusable energy that produced from the electric lamp is …………………

20-……………..is a renewable energy resource.

21-Fossil fuel includes oil, ………………. and …………………

22-Global warming causes the raise of ………….. on Earth and changes its climate.

23-In hand bell kinetic energy is converted into ………….. energy.

24-Fuel is used as a source of …………….. energy.

25-Coal and oil are considered as ………… resources of energy.

26-We need …………… energy for cooking food and warming houses.

27-The Sun provides Earth with light and …………….

28-Energy produced from the radio which helps the device do its main function is ……………… energy.

Choose the correct answer:

1-Toy cars need energy to do all the following functions, except …………….

a-moving forward and backward　　b-rotation in circle
c-moving right and left　　d-rotation around the moon.

2-Among forms of fuel that present in car fuel stations are …………..

a-gasoline and wood　　b-natural gas and coal
c-wood and coal　　d-gasoline and natural gas

3-All of the following are examples of renewable energy resources, except ………………

a-fossil fuel　　b-waterfalls　　c-wind　　d-sunlight

4-The input energy when using the hair dryer is the ……………. energy.

a-Electrical　　b-potential　　c- kinetic　　d-thermal.

5-Fossil fuels need …………to be formed under the Earth's surface.

a-five years　　b-ten years
c-hundreds of years　　d-millions of years

6-The steps of forming fossil fuel, don't include …………… of the remains of the living organisms.

a-decaying　　b-cooling　　c-burying　　d-heating

7-Electric wires are made of ………………

a-copper　　b-carbon　　c-wood　　d-glass

8-All the following are forms of fuel, except ………………

a-wood b-natural gas c-gasoline d-glass

9-The sun provides us with …………….and …………

a-sound – heat b-light – electricity

c-sound – light d-heat – light

10-All the following are renewable energy resources, except ……….

a-waterfalls b- coals c- the Sun d- wind

11-Both hair dryer and electrical water kettle produce ………. Energy

a-chemical b-thermal c-light d-potential

12-Some electrical devices need ………… energy to be recharged

a-electrical b- thermal c-potential d-sound

13-When you use the hand bell, the ……………. energy changes into sound energy.

a-light b-thermal c-kinetic d-electrical

14-Extreme heat and pressure under the Earth's surface has an important role in forming …………….

a-wood b-wind c-fossil fuel d-biofuel

15-Oil is a non-renewable energy resource that is used inside a …….

a-flash light b-car engine

c-electric fan d-washing machine

16-It takes several ……. for a spacecraft to travel from Earth to Mars.

a-seconds b-minutes c-days d-months.

17-You feel warm when you rub your hands together, because ………… energy

a-thermal b-light c-electrical c-sound

18-Sound and ………… energies are from output energies when operating the mobile phone.

a-electrical b-potential c-chemical d-light

19-We can use the energy obtained from burning of wood directly in all of the following situations, except ……………

a-warming houses b-operating television

c-cooking food d-boiling water

20-Some kinetic energy is converted into ………… energy due to friction of bike's tire with the road.

a-light b-electrical c-potential d-thermal

21-Inside the electric power station, heating of……………… produce steam.

a- turbines b-generators c-water d-fuel

22-While playing guitar, the ………. energy changes into sound energy.

a-kinetic b-light c-chemical d-potential

23-The output energy when playing drums is the .... energy.

a-chemical b-light c- sound d-potential

24-All the following are forms of fossil fuel, except............

a-water b-coal c-natural gas d-oil

25-Which of the following is a renewable energy resources?

a-running bicycle b-running car

c-running water d-running person

26-Curiosity rover is designed to explore ....

a-Earth planet b-Mars planet c-the sun d-the moon

27-All the following factors play an important role in the formation of fossil fuel, except............

a-extreme pressure b-extreme heat

c-the moon light d-rocks and sediment.

28-To move a car, the fuel must be .... The car engine at first.

a-freeze inside b-Cooled inside

c-burned inside d-removed from

29-By rubbing hands .... energy is changed into thermal energy.

a-chemical b-kinetic c-sound d-potential

30-................. is a type of biofuel which is made of wood.

a-Coal b-Oil c-Charcoal d-Natural gas

31-................. is the main source of energy on the Earth's surface.

a-Oil b-gasoline c-The sun d-The moon

32-The output energy in the Mars exploring vehicle is .... energy.

a-electrical b-light c-kinetic d-solar

33-The energy source of a toy car is ....

a-engine b-wires c-battery d-wheels

34-The output energy when playing drums is the .... energy.

a-chemical b-light c-sound d-potential

Put true or false:

1-You need gasoline to move a bicycle. ( )

2-A solar panel consists of one small solar cell. ( )

3-Most of energy chains start with the moon. ( )

4-We cannot create a new form of energy, and also we cannot destroy an existed form of energy. ( )

5-There is a stored chemical energy inside the food we eat. ( )

6-Machines make our life easier. ( )

7-We have to conserve all forms of fuel. ( )

8-Energy may be destroyed inside different devices. (   )
9-The movement of a generator in electric power station produces potential energy. (   )
10-The amount of oil on Earth is limited. (   )
11-The Mars rover curiosity converts sound energy into kinetic energy. (   )
12-Mars rover curiosity can be operated from a distance. (   )
13-The stored energy in batteries is the light energy. (   )
14-the electric lamp is the primary source of most energies on the earth. (   )
15-The electric iron converts electrical energy into thermal energy. (   )
16-Energy that is produced from burning gasoline, cannot be used to move a car. (   )
17-Burning of all forms of fuel produces thermal energy. (   )
18-Coal can be used to produce electrical energy. (   )
19-The nonrenewable resources of energy include coal, gasoline and water.(   )
20-When fuel is burned, it produces thermal energy. (   )
21-Turbines convert kinetic energy into electrical energy. (   )
22-The electrical energy produced from electric power station can be used in houses, streets and factories. (   )
23-We have to reduce the usage of the sun as a source of energy. (   )
24-Chemical energy is the energy that is stored in food and battery. (   )
25-Electricity can be generated from water. (   )
26-When a piece of coal is burned, thermal energy is produced. (   )
27-Charcoal is formed from decomposition of remains of ancient plants. (   )
28-Biofuels are from nonrenewable resources of energy. (   )

Write the scientific term of each of the following:

1-A device used to convert electrical energy into light energy. (……………………)
2-Natural resources of energy, that take a short period of time to be renewed. (……………………………………)
3-The energy produced from a battery. (………………………………)
4-A process in which water change into water vapor. (………………………………)
5-The liquid that stores chemical energy, and it is used to mover cars. (………………………………)
6-A fuel that is produced from remains of dead animals and plants under the Earth's surface. (………………………………)
7-It is a form of biofuel, that can be made from some types of plants such as grass and wood chips. (………………………………)

8-The matter that produces steam on heating, which is used to turn turbines in electric power station. (……………………………)
9-The energy used to play a drum. (……………………………)
10-The main source of energy on the Earth. (…………………………)
11-The form of energy that is stored in the battery of a remote controlling toy car. (……………………………)
12-The remote controlled vehicle used to explore the surface of planet Mars. (……………………………)
13-The input energy of television. (……………………………)
14-The wasted energy in a computer. (……………………………)
15-The output energy of the washing machine which helps it do its main function. (……………………………)
16-Energy can neither be created nor destroyed, but only converts from one form to another. (……………………………)
17-A kind of energy that is produced from the electric heater and burning coal. (……………………………)
18-The energy produced from playing guitar. (…………………………)
19-The energy stored inside the coal. (……………………………)
20-The substance produced from the remains of dead trees that buried deep in the Earth over millions of years. (………………………)
21-the energy stored in coal. (……………………………)
22-Any substance that produces thermal energy. (……………………………)

Give reasons for each of the following:

1-We must turn off lights that we are not needed for a while.

…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

2-The used amount of fossil fuels cannot be replaced as quickly as it is consumed.

…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

3-Biofuel is considered as a renewable fuel.

…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

4-Some calculators use the sunlight to be operated.

....

....

....

5-When you press on the spring of soap dispenser, the soap moves upward.

....

....

....

6-Coal is considered as a nonrenewable energy resources.

....

....

....

7- A remote controlled toy car needs a battery to move from one place to another.

....

....

....

8-Mars rover curiosity operates for a long periods of time on Mars without any need to be recharged.

....

....

....

9-You feel heat when you put your hands near a lighted electric lamp.

....

....

....

10-The presence of batteries inside a toy car.

....

....

....

11-Thermal energy in a mobile phone is considered as a wasted energy.

....

....

....

12-The electrical energy that enters the hair dryer does not come out of the hair dryer in the same form of energy.

....

....

....

13-Sound energy and thermal energy are considered as a wasted energy in the blender.

....
....
....

14-The fuel is very important for different means of transportation.

....
....
....

15-Sometimes the fuel indicator of a car goes down.

....
....
....

16-Water and wind are considered as renewable resources of energy.

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....
....

17-Coal and gasoline are considered as nonrenewable resources of energy.

....
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....

18-Smog of cars are very dangerous to human health.

....
....
....

19-Farmers must decrease the use of pesticides.

....
....
....

20-Wood is considered as a fuel.

....
....
....

21-Fossil fuels can't be replaced soon after it is used.

....
....
....

22-Increase burning of fossil fuels cause acid rain.

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……
……
23-Acid rain has a bad effect on buildings in cities.
……
……
……
24-Global warming occurs due to the increase of burning coal and oil.
……
……
……

What happens to:

1-The change of energy when you turn on the television.
……
……
……
2-The change of energy when you burn a piece of wood.
……
……
……
3-The change of energy when you shake a small bell with your hand.
……
……
……
4-The car fuel indicator if the amount of gasoline in a car decreases.
……
……
……
5-The car movement if fuel runs out in a car.
……
……
……
6-A generator that is connected to a damaged turbine in an electric power station.
……
……
……

7-The movement of turbines if the water in an electric power station is not heated.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

8-The amount of fossil fuels if people don't conserve their usage.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

9-To the Earth's temperature if we use renewable resources of energy instead of fossil fuels.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

What happens if:

1-Batteries of remote controlled car run out.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

2-Solar calculators were exposed to the sunlight.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

3-You put your hand near the lightened lamp.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

4-You use a mobile phone for a long period of time.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

5-You turn on an electric fan.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

6-The remains of dead living organisms were buried under the Earth's surface over millions of years.

....

....

....

7-Decomposition of remains of sea animals under the Earth's surface.

....

....

....

8-Shaking of a hand bell. (according to the change of energy)

....

....

....

8-Turning and electric lamp. (according to the change of energy)

....

....

....

9-You turn on TV (according to the change of energy)

....

....

....

Second Term

February Exam Revision

Complete the following:

1-In any energy chain, some of the energy is lost in the form of heat.
2-Wood and charcoal are examples of biofuel, while coal and oil are examples of fossil fuels.
3-When you ride a bicycle, the chemical energy stored in your body is converted into kinetic energy which cause the bicycle to move.
4-When we expose our bodies to the sun we feel warm.
5-The energy can be changed from one form to another.
6-The change of electrical energy into sound energy in the radio is an example that proves the law of conservation of energy.
7-The natural resources that can be replaced shortly after being used are called renewable resources of energy.
8-The output energy of burning coal is thermal energy, which is used to produce kinetic energy in electric power station in order to generate electrical energy.
9-The output energy that helps the washing machine to do its main function is kinetic energy, and this energy is considered the input energy of the hand bell.
10-The input energy of the toy car is chemical energy that is stored in its battery and then converted into electrical energy in its wires to operate its motor.
11-The generator in electric power station changes kinetic energy into electrical energy.
12-Remote controlled of toy cars changes chemical energy stored in its batteries into electrical energy that is turn changes into kinetic energy which is used to move the car.
13-When you rub your hands together, the kinetic energy is converted into thermal energy.
14-Coal, natural gas and oil can be used in generating electricity.
15-To operate an electric mixer we use electrical energy.
16-When your cell phone is out of charge, you must recharge its battery to operate again.

17-Some calculators can change solar energy into electrical energy by using solar cell

18-On planet Mars, curiosity robot is operated by using solar energy from sunlight that is converted into electrical energy used to recharge its batteries.

19-The unusable energy that produced from the electric lamp is thermal

20- Wind is a renewable energy resource.

21-Fossil fuel includes oil, natural gas and coal.

22-Global warming causes the raise of temperature on Earth and changes its climate.

23-In hand bell kinetic energy is converted into sound energy.

24-Fuel is used as a source of thermal energy.

25-Coal and oil are considered as non-renewable resources of energy.

26-We need thermal energy for cooking food and warming houses.

27-The Sun provides Earth with light and heat.

28-Energy produced from the radio which helps the device do its main function is sound energy.

Choose the correct answer:

1-Toy cars need energy to do all the following functions, except ....

a-moving forward and backward b-rotation in circle

c-moving right and left d-rotation around the moon.

2-Among forms of fuel that present in car fuel stations are ....

a-gasoline and wood b-natural gas and coal

c-wood and coal d-gasoline and natural gas

3-All of the following are examples of renewable energy resources, except ....

a-fossil fuel b-waterfalls c-wind d-sunlight

4-The input energy when using the hair dryer is the .... energy.

a-Electrical b-potential c- kinetic d-thermal.

5-Fossil fuels need ....to be formed under the Earth's surface.

a-five years b-ten years

c-hundreds of years d-millions of years

6-The steps of forming fossil fuel, don't include .... of the remains of the living organisms.

a-decaying b-cooling c-burying d-heating

7-Electric wires are made of ....

a-copper b-carbon c-wood d-glass

8-All the following are forms of fuel, except ………………

a-wood b-natural gas c-gasoline **d-glass**

9-The sun provides us with …………….and …………

a-sound – heat b-light – electricity

c-sound – light **d-heat – light**

10-All the following are renewable energy resources, except ……….

a-waterfalls **b- coals** c- the Sun d- wind

11-Both hair dryer and electrical water kettle produce ………. Energy

a-chemical **b-thermal** c-light d-potential

12-Some electrical devices need ………… energy to be recharged

a-electrical b- thermal c-potential d-sound

13-When you use the hand bell, the ……………. energy changes into sound energy.

a-light b-thermal **c-kinetic** d-electrical

14-Extreme heat and pressure under the Earth's surface has an important role in forming …………….

a-wood b-wind **c-fossil fuel** d-biofuel

15-Oil is a non-renewable energy resource that is used inside a …….

a-flash light **b-car engine**

c-electric fan d-washing machine

16-It takes several ……. for a spacecraft to travel from Earth to Mars.

a-seconds b-minutes c-days **d-months.**

17-You feel warm when you rub your hands together, because ………… energy

a-thermal b-light c-electrical c-sound

18-Sound and ………. energies are from output energies when operating the mobile phone.

a-electrical b-potential c-chemical **d-light**

19-We can use the energy obtained from burning of wood directly in all of the following situations, except ……………

a-warming houses **b-operating television**

c-cooking food d-boiling water

20-Some kinetic energy is converted into ………… energy due to friction of bike's tire with the road.

a-light b-electrical c-potential **d-thermal**

21-Inside the electric power station, heating of……………… produce steam.

a- turbines b-generators **c-water** d-fuel

22-While playing guitar, the .... energy changes into sound energy.

a-kinetic b-light c-chemical d-potential

23-The output energy when playing drums is the .... energy.

a-chemical b-light c- sound d-potential

24-All the following are forms of fossil fuel, except............

a-water b-coal c-natural gas d-oil

25-Which of the following is a renewable energy resources?

a-running bicycle b-running car

c-running water d-running person

26-Curiosity rover is designed to explore ....

a-Earth planet b-Mars planet c-the sun d-the moon

27-All the following factors play an important role in the formation of fossil fuel, except............

a-extreme pressure b-extreme heat

c-the moon light d-rocks and sediment.

28-To move a car, the fuel must be .... The car engine at first.

a-freeze inside b-Cooled inside

c-burned inside d-removed from

29-By rubbing hands .... energy is changed into thermal energy.

a-chemical b-kinetic c-sound d-potential

30-................. is a type of biofuel which is made of wood.

a-Coal b-Oil c-Charcoal d-Natural gas

31-................. is the main source of energy on the Earth's surface.

a-Oil b-gasoline c-The sun d-The moon

32-The output energy in the Mars exploring vehicle is .... energy.

a-electrical b-light c-kinetic d-solar

33-The energy source of a toy car is ....

a-engine b-wires c-battery d-wheels

34-The output energy when playing drums is the .... energy.

a-chemical b-light c-sound d-potential

Put true or false:

1-You need gasoline to move a bicycle. (X)

2-A solar panel consists of one small solar cell. (X)

3-Most of energy chains start with the moon. (X)

4-We cannot create a new form of energy, and also we cannot destroy an existed form of energy. (√)

5-There is a stored chemical energy inside the food we eat. (√)
6-Machines make our life easier. (√)
7-We have to conserve all forms of fuel. (√)
8-Energy may be destroyed inside different devices. (X)
9-The movement of a generator in electric power station produces potential energy. (X)
10-The amount of oil on Earth is limited. (√)
11-The Mars rover curiosity converts sound energy into kinetic energy. (X)
12-Mars rover curiosity can be operated from a distance. (√)
13-The stored energy in batteries is the light energy. (X)
14-the electric lamp is the primary source of most energies on the earth. (X)
15-The electric iron converts electrical energy into thermal energy. (√)
16-Energy that is produced from burning gasoline, cannot be used to move a car. (X)
17-Burning of all forms of fuel produces thermal energy. (√)
18-Coal can be used to produce electrical energy. (√)
19-The nonrenewable resources of energy include coal, gasoline and water(X)
20-When fuel is burned, it produces thermal energy. (√)
21-Turbines convert kinetic energy into electrical energy. (X)
22-The electrical energy produced from electric power station can be used in houses, streets and factories. (√)
23-We have to reduce the usage of the sun as a source of energy. (X)
24-Chemical energy is the energy that is stored in food and battery. (√)
25-Electricity can be generated from water. (√)
26-When a piece of coal is burned, thermal energy is produced. (√)
27-Charcoal is formed from decomposition of remains of ancient plants. (X)
28-Biofuels are from nonrenewable resources of energy. (X)

Write the scientific term of each of the following:

1-A device used to convert electrical energy into light energy. (electric lamp)
2-Natural resources of energy, that take a short period of time to be renewed. (renewable resources)
3-The energy produced from a battery. (electrical energy)
4-A process in which water change into water vapor. (evaporation)
5-The liquid that stores chemical energy, and it is used to mover cars. (gasoline)

6-A fuel that is produced from remains of dead animals and plants under the Earth's surface. (Fossil Fuels)
7-It is a form of biofuel, that can be made from some types of plants such as grass and wood chips. (Liquid Fuels)
8-The matter that produces steam on heating, which is used to turn turbines in electric power station. (water)
9-The energy used to play a drum. (kinetic energy)
10-The main source of energy on the Earth. (The sun)
11-The form of energy that is stored in the battery of a remote controlling toy car. (chemical energy)
12-The remote controlled vehicle used to explore the surface of planet Mars. (Mars curiosity rover)
13-The input energy of television. (Electrical energy)
14-The wasted energy in a computer. (thermal energy)
15-The output energy of the washing machine which helps it do its main function. (kinetic energy)
16-Energy can neither be created nor destroyed, but only converts from one form to another. (Law of conservation of energy)
17-A kind of energy that is produced from the electric heater and burning coal. (thermal energy)
18-The energy produced from playing guitar. (sound energy)
19-The energy stored inside the coal. (chemical energy)
20-The substance produced from the remains of dead trees that buried deep in the Earth over millions of years. (coal)
21-the energy stored in coal. (chemical energy)
22-Any substance that produces thermal energy. (fuel)

Give reasons for each of the following:

1-We must turn off lights that we are not needed for a while.
To conserve the electricity.
2-The used amount of fossil fuels cannot be replaced as quickly as it is consumed.
Because fossil fuel is formed over millions of years.
3-Biofuel is considered as a renewable fuel.
Because it can be replaced shortly after it is used.

4-Some calculators use the sunlight to be operated.
Because solar panels absorb solar energy and convert it into electrical energy which calculators use to be operated.
5-When you press on the spring of soap dispenser, the soap moves upward.
Because the potential energy stored in the spring changes into kinetic energy that moves the soap upward.
6-Coal is considered as a nonrenewable energy resources.
Because it is used at a rate faster than it can be renewed.
7- A remote controlled toy car needs a battery to move from one place to another.
Because chemical energy stored in battery is converted into electrical energy that changes into kinetic energy that makes the car moves.
8-Mars rover curiosity operates for a long periods of time on Mars without any need to be recharged.
Due to the presence of solar panels that use sunlight to recharge its batteries.
9-You feel heat when you put your hands near a lighted electric lamp.
Because some of the electrical energy is converted into thermal energy.
10-The presence of batteries inside a toy car.
Because battery is the source of energy where the chemical energy is converted into electrical energy to operate the toy car.
11-Thermal energy in a mobile phone is considered as a wasted energy.
Because it does not help the mobile phone to do its main function.
12-The electrical energy that enters the hair dryer does not come out of the hair dryer in the same form of energy.
Because it is converted into kinetic, thermal and sound energies.
13-Sound energy and thermal energy are considered as a wasted energy in the blender.
Because they don't help the blender to do its main function.
14-The fuel is very important for different means of transportation.
Because fuel is burned inside the engines to produce thermal energy that is changed into kinetic energy which causes the different means of transportation to move.
15-Sometimes the fuel indicator of a car goes down.
Because the fuel in the car tank runs out.
16-Water and wind are considered as renewable resources of energy.
Because they can be replaced shortly after being used.

17-Coal and gasoline are considered as nonrenewable resources of energy.
Because they are used at a rate faster that they can be used.
18-Smog of cars are very dangerous to human health.
Because the smog of cars causes irritation of human's eyes and lungs.
19-Farmers must decrease the use of pesticides.
Because pesticides cause the pollution of soil and water.
20-Wood is considered as a fuel.
Because wood produces thermal energy when it is burned.
21-Fossil fuels can't be replaced soon after it is used.
Because fossil fuels are formed over millions of years.
22-Increase burning of fossil fuels cause acid rain.
Because burning of fossil fuel produces carbon dioxide gas which combines with water in air forming acid rain.
23-Acid rain has a bad effect on buildings in cities.
Because acid rain causes dissolving of some rocks including the rocks used for building.
24-Global warming occurs due to the increase of burning coal and oil.
Because burning coal and oil produces carbon dioxide gas which forms a layer in atmosphere that raps heat on Earth causing rise in Earth's temperature that causes global warming.

What happens to:

1-The change of energy when you turn on the television.
Electric energy changed into light and sound energies.
2-The change of energy when you burn a piece of wood.
Chemical energy stored in wood changes into thermal energy.
3-The change of energy when you shake a small bell with your hand.
Kinetic energy is changed into sound energy.
4-The car fuel indicator if the amount of gasoline in a car decreases.
The car fuel indicator will go down.
5-The car movement if fuel runs out in a car.
The car movement decreases gradually until it stops.
6-A generator that is connected to a damaged turbine in an electric power station.
Turbines cannot produce kinetic energy, so the generator will not turn and don't generate electricity.

7-The movement of turbines if the water in an electric power station is not heated.

Water will not produce steam, so the turbine will not move and will not produce kinetic energy.

8-The amount of fossil fuels if people don't conserve their usage.

Fossil fuels will run out on the Earth.

9-To the Earth's temperature if we use renewable resources of energy instead of fossil fuels.

The Earth's temperature will not increase.

What happens if:

1-Batteries of remote controlled car run out.

The car will not move, so we can recharge its batteries by connecting toy car to a nearby charger or replacing old batteries with new ones.

2-Solar calculators were exposed to the sunlight.

Solar energy is converted into electrical energy that operate them.

3-You put your hand near the lightened lamp.

You will feel warm, because some electrical energy is converted into thermal energy.

4-You use a mobile phone for a long period of time.

Some energy is wasted as thermal energy.

5-You turn on an electric fan.

The electrical energy is converted into kinetic energy which do the main function of fan and sound energy as wasted energy.

6-The remains of dead living organisms were buried under the Earth's surface over millions of years.

They are converted into fossil fuels.

7-Decomposition of remains of sea animals under the Earth's surface.

They will form oil and natural gas.

8-Shaking of a hand bell. (according to the change of energy)

The kinetic energy changes into sound energy.

9-Turning and electric lamp. (according to the change of energy)

The electrical energy changes into light and thermal energies.

10-You turn on TV (according to the change of energy)

The electrical energy changes into light and sound energies.

حمل الآن

مجانا وحصريا

المراجعة رقم (6)

اختبار شهر فبراير







February Revision

Mr. Ahmed Elbasha

✸ (1) Write the scientific term:

1) The source of energy in some toys that stores chemical energy. (..................................)
2) The energy produced from batteries. (..................................)
3) A robotic vehicle designed to explore the surface of Mars. (..................................)
4) The energy produced from a battery. (..................................)
5) The energy used to operate a television. (..................................)
6) The main source of energy for most forms of energies on Earth. (..................................)
7) The energy produced when the wood of trees is burned. (..................................)
8) The substance that is produced from the remains of dead trees that buried deep in the Earth over millions of years. (..................................)
9) The energy stored in coal. (..................................)
10) A form of energy produced from the electric lamp and affects our eyes. (..................................)
11) Energy can neither be created nor destroyed, but only converted from one form into another. (..................................)
12) The energy that is used to operate an electric heater. (..................................)
13) The energy that is stored in both batteries and food. (..................................)
14) The energy that is produced from the electric power stations and flows through wires. (..................................)
15) A form of energy that is produced from the electric heater and burning coal. (..................................)
16) The wasted energy when using a mobile phone for a long time. (..................................)

17)	The energy produced when the wood of trees is burned.	(..................................)
18)	It is any substance which produces thermal energy on burning.	(..................................)
19)	Natural resources of energy, that take a short period of time to be renewed.	(..................................)
20)	Natural resources of energy that take a very long period of time to be formed.	(..................................)
21)	It is a form of biofuel that can be made from some types of plants such as grass and wood chips.	(..................................)
22)	They are fuels that were formed from remains of dead animals and plants under the Earth's surface.	(..................................)
23)	It is a form of fossil fuel that was formed from remains of dead plants under the effect of extreme heat and pressure.	(..................................)
24)	It is a form of fossil fuel that was formed from dead marine animals	(..................................)

✸(2) Complete the following sentences by using these words:

1. **(kinetic - chemical – electrical - thermal)**

1. The energy stored in batteries is .... energy.
2. Fuel is used as a source of .... energy.
3. batteries of a remote-controlled toy, chemical energy is converted into .... energy, which is converted into .... energy or sound energy.

2. **(heat - chemical - coal - kinetic - Sun - thermal)**

1. Most of the energy we use is produced inside the ....
2. When you eat, your body turns the .... energy found in the food into .... energy that helps your body move.
3. In electric power stations .... is burned to generate thermal energy.
4. In an electric iron, electrical energy is converted into .... energy.
5. In several electrical devices, most of the waste energy leaks out in the form of ....

✹(3) Choose the right answer:

1. The .... on the rover Curiosity convert solar energy into .... energy which is used to charge its batteries. *

a. solar panels - electrical
b. batteries - electrical
c. solar panels - sound
d. batteries - sound

2. In the battery of a toy car .... energy is converted into electrical energy.

a. chemical
b. sound
c. light
d. thermal

3. Electrical energy produced from a toy car battery can be converted into .... and .... energies.

a. kinetic - sound - solar
b. kinetic - thermal - solar
c. kinetic - sound – thermal
d. sound - thermal - solar

4. The energy source in a toy car is the ....

a. engine.
b. tires.
c. battery.
d. fuel.

5. It takes several .... for a spacecraft to travel from Earth to Mars.

a. seconds
b. minutes
c. days
d. months

6. Curiosity rover is designed to explore ....

a. Earth.
b. Mars.
c. the Sun.
d. the moon.

7. In the washing machine, the .... energy is converted into kinetic and sound energies.

a. light
b. electrical
c. thermal
d. potential

8. You feel warm when you rub your hands together, because .... energy is converted into thermal energy.

a. kinetic
b. light
c. electrical
d. sound

9. 3. Inside a light bulb, electrical energy is converted into .... and .... energies.

a. sound - light
b. sound - thermal
c. kinetic - light
d. light - thermal

10. When you turn on a light bulb, the electrical energy travels through .... until reaching the bulb.

a. wires
b. glass
c. wood
d. plastic

11. Remains of living organisms that were buried under the Earth's surface are affected by .... to form fossil fuels.

a. low pressure and high temperature
b. high pressure and low temperature
c. low pressure and low temperature
d. high pressure and high temperature

12. All the following factors play an important role in the formation of fossil fuels, except ....

a. extreme pressure.
b. extreme heat.
c. strong wind.
d. rocks and sediment.

13. All forms of fossil fuel are formed ....

a. above the Earth's surface.
b. under the Earth's surface.
c. above the water surface.
d. in the air around us.

14. All the following are forms of fossil fuels, except ....

a. water.
b. coal.
c. natural gas.
d. oil.

15. The steps of forming fossil fuel don't include .... of the remains of living organisms.

a. decaying
b. cooling
c. burying
d. heating

16. All the following actions don't conserve electrical energy, except ....

a. unplugging unused electrical appliances.
b. plugging many unused electrical appliances.
c. turning on all the house lights all the day long.
d. leaving the television turned on all the day long.

17. All the following can be used to generate electrical energy, except ....

a. oil.
b. natural gas.
c. water.
d. glass.

18. In the hair dryer, the electrical energy is converted into ...., ... and .... energies.

a. sound - thermal - kinetic
b. kinetic - light - chemical
c. thermal - light – chemical
d. light - sound - chemical

19. Plants can convert the light energy from the Sun into .... energy which is stored in the plant in the form of sugar.

a. sound
b. electrical
c. chemical
d. kinetic

20. When you eat an apple, your body converts the .... energy stored in the apple into .... energy when you move.

a. chemical - electrical
b. kinetic - chemical
c. electrical – chemical
d. chemical - kinetic

21. Electric wires are made of ....

a. copper.
b. paper.
c. wood.
d. glass.

22. In the electric water kettle, electrical energy is converted into .... energy that can heat the cold water inside it.

a. potential b. thermal c. electrical d. chemical

23. While playing a guitar............... energy is converted into sound energy.

a. kinetic b. light c. chemical d. potential

24. Both the hair dryer and the electric water kettle produce .... energy.

a. chemical b. thermal c. electrical d. potential

25. Some kinetic energy is converted into .... energy due to friction of bike's tire with the road.

a. light b. electrical c. potential d. thermal

26. Which form of energy is not used or produced when you turn on an electric bulb?

a. Electrical. b. Light. c. Thermal. d. Sound.

27. When you use the hand bell, the .... energy is converted into sound energy.

a. light b. thermal c. kinetic d. electric

28. The input energy when using the hair dryer is the .... energy.

a. electrical b. potential c. kinetic d. thermal

29. Which form of energy is not an output energy when a hair dryer is used ? ....

a. Kinetic energy. b. Electrical energy.

c. Thermal energy. d. Sound energy.

30. During charging a mobile phone, the .... energy is converted into .... energy that is stored in the phone battery.

a. electrical - chemical b. chemical - thermal

c. electrical – thermal d. thermal - chemical

31. Sound and .... energies are output energies when operating the mobile phone.

a. electrical b. potential c. chemical d. light

32. The output energy when playing drums is the .... energy.

a. chemical b. light c. sound d. potential

33. The produced .... energy does not help the blender do its job.

a. chemical b. sound c. light d. potential

34. When a piece of coal is burned .... energy is produced.

a. thermal b. solar c. sound d. potential

35. When a football player runs, the chemical energy inside his body is converted into .... and .... energies.

a. potential - light
b. kinetic - light
c. thermal - kinetic
d. thermal – light

36. Among the forms of fuel that are present in car fuel stations are ....

a. gasoline and wood.
b. natural gas and coal.
c. wood and coal.
d. gasoline and natural gas.

37. We can use the energy obtained from burning of wood directly for all of the following purposes, except ....

a. warming houses.
b. operating television.
c. cooking food.
d. boiling water.

38. .... is considered as the main resource of energy on the Earth's surface.

a. Gasoline
b. The Sun
c. Natural gas
d. The moon

39. All the following are renewable resources of energy, except...............

a. natural gas.
b. water.
c. the Sun.
d. wind.

40. Nonrenewable resources of energy take .... to be formed.

a. a short period of time
b. a very long period of time
c. few minutes
d. few hours

41. Ancient people used .... as a fuel before discovering gasoline.

a. electricity
b. water
c. wind
d. wood

42. Wood is considered as ....

a. biofuel.
b. fossil fuel.
c. liquid fuel.
d. gaseous fuel.

43. Coal was formed under the Earth's surface from the remains of ....

a. dead animals.
b. dead plants.
c. dead humans.
d. dead insects.

44. Extreme heat and pressure under the Earth's surface has an important role in forming ....

a. wood.
b. wind.
c. fossil fuel.
d. biofuel

✹(4) Complete the following:

1. Remote controlled toy car converts .... energy stored in its batteries into .... energy that is converted into .... energy which is used to move the car.
2. To operate an electric mixer we use .... energy.
3. When your cell phone is out of charge, you must recharge its .... to operate it again.
4. Some calculators can change solar energy into .... energy by using the sunlight.
5. On planet Mars, Curiosity robot is operated by using .... energy from sunlight that is converted into .... energy used to recharge its batteries.
6. The energy produced from the battery and used to operate a toy car is .... energy.
7. The energies that are produced from the washing machine are .... energy and .... energy.
8. When you rub your hands together, the .... energy is converted into .... energy.
9. When you ride a bicycle .... energy stored in your food is converted into .... energy which causes the bicycle to move.
10. Some kinetic energy of the bicycle is converted into .... energy due to the friction of its tires with the road.
11. The electric lamp converts .... energy into light energy and .... energy.
12. Energy can neither be .... nor .... but only .... from one form to another.
13. The electric lamp converts electrical energy into .... energy and .... energy.
14. By using the mobile phone for a long time, some energy is lost in the form of .... energy.
15. The main function of a blender is done by the help of the produced .... energy.
16. The input energy in an electric bulb is .... energy, while its output energies are .... energy and also .... energy which doesn't help in its main function
17. In the electric heater .... energy is considered as an input energy, while thermal energy is considered as .... energy.

18. The kinetic energy in a hand bell is considered as .... energy, while in an electric fan is considered as .... energy.

19. The natural resources that can be replaced shortly after being used are called .... resources of energy.

20. The natural resources that are consumed at a rate faster than they can be renewed are called .... resources of energy.

21. Different forms of fuel can be classified into two main types which are .... and ....

22. The type of fuel that is produced from living organisms that can be planted is called .... such as wood and ....

23. Wood and .... are examples of biofuel, while .... and .... are examples of fossil fuel.

24. In electric power station, we use fossil fuels such as oil and natural gas which are considered as .... resources of energy.

25. Water is considered as .... resource of energy, and we can use it to generate ....

26. When fuel is burned in an electric power station, it produces .... energy to heat water.

✹(5) Put (√) or (X) :

1. We can convert the solar energy into different forms of energy. ( )
2. The input energy in the hair dryer is chemical energy. ( )
3. Mobile phone stores electrical energy in its battery in the form of chemical energy. ( )
4. A toy car can continue moving even after its battery runs out. ( )
5. As the speed of a car increases, the amount of used fuel decreases. ( )
6. Biofuel is one of nonrenewable resources of energy. ( )
7. Extreme cooling under the Earth's surface helps in the formation of oil. ( )
8. Both coal and wood produce energy when they are burned. ( )
9. Any form of fossil fuels must be formed under the Earth's surface. ( )
10. Oil, natural gas and coal can be used to produce electrical energy. ( )
11. Turning off lights that we do not need is a way to conserve electricity. ( )
12. Movement of a generator in an electric power station produces potential energy. ( )
13. We have to conserve all forms of fuel. ( )
14. The consumed energy in the blender is sound energy. ( )
15. The produced energy in remote-controlled toy car is chemical energy. ( )
16. In the electric blender, sound energy is converted into electrical energy ( )
17. Most of energy chains starts with the energy of the moon. ( )
18. Energy can be destroyed inside some devices . ( )
19. When you ride a bike, some of the kinetic energy is converted into thermal energy due to the friction between tires and the road. ( )
20. There is a stored chemical energy inside the food we eat. ( )
21. Energy can't be changed from one form to another. ( )
22. The electric bulb depends on chemical energy to operate. ( )
23. Both the electric bulb and the electric heater produce thermal energy ( )
24. Water and gasoline are two renewable resources of energy. ( )
25. We have to reduce the usage of the Sun as a source of energy. ( )
26. Rate of usage of oil is slower than its rate of formation under the Earth's surface. ( )
27. The Sun is the main source of forming both biofuel and fossil fuel. ( )
28. The input energy in a hair dryer is the chemical energy . ( )
29. In waterfalls, the water that falls down has kinetic energy. ( )
30. Curiosity is a vehicle that travels across the surface of the planet Mars. ( )
31. In the soap dispenser, potential energy is converted into kinetic energy. ( )

✸(6) Correct the underline

1	The solar energy produced from the **moon** can be converted into different forms of energy.	(……………………….)
2	Toy cars depend on **fuel** as a source of electrical energy.	(……………………….)
3	Curiosity is a robotic vehicle that is designed to explore the surface of **moon**.	(……………………….)
4	Most of energy chains start with the **moon**	(……………………….)
5	There is a stored **thermal** energy inside the food we eat.	(……………………….)
6	The input energy in a hair dryer is the **chemical** energy	(……………………….)
7	We need **sound** energy, for cooking food and warming houses.	(……………………….)
8	**Coal** is the main source of most energies on the Earth's surface.	(……………………….)
9	Fuel is the substance that produces **electrical energy** on burning.	(……………………….)
10	We have to increase planting vegetables and fruits that need a **large** amount of water.	(……………………….)
11	The nonrenewable resources of energy take a **short** period of time to be formed under the Earth's surface.	(……………………….)
12	The rate of usage of fossil fuels must be **increased**.	(……………………….)
13	Wood is a form of **fossil fuels** that can be used in houses.	(……………………….)
14	Fossil fuels include oil, coal and **wood**.	(……………………….)
15	After death of living organisms, their remains are buried under the Earth's surface and exposed to extreme pressure and **cool**.	(……………………….)
16	Water is a **nonrenewable** energy resource.	(……………………….)
17	The movement of generator in the electric power station changes kinetic energy into **potential** energy.	(……………………….)

✸(7) Give reason for:

1. A remote-controlled toy car needs a battery to move from one place to another.

    ....

2. Some calculators use sunlight to operate.

    ....

3. Mars rover Curiosity operates for a long period of time on Mars without any need to be recharged.

    ....

4. Water and wind are considered as renewable resources of energy.

    ....

5. Coal and gasoline are considered as nonrenewable resources of energy.

    ....

6. Using wood of trees as a fuel has negative effects on the environment.

    ....

7. When you rub your hands together, you feel warm.

    ....

8. You feel heat, when you put your hands near a lighted electric lamp.

    ....

9. Thermal energy in a mobile phone is considered as a wasted energy.

    ....

10. We must turn off lights that we do not need.

    ....

✸(8) What happen if:

1. Batteries of remote-controlled toy car run out.

    ....

2. Solar calculators were exposed to the sunlight.

    ....

3. Mars rover Curiosity didn't get any sunlight on Mars surface.

    ....

4. You put your hands near the lighted lamp.

    ....

5. You use a mobile phone for a long time. (according to the wasted energy).

    ....

6. You turn on an electric fan. (according to the change of energy).

    ....

7. Decomposition of remains of sea animals under the Earth's surface

    ....

(9) TRY TO ANSWER:

1. Look at the following figures, then complete the following sentences :



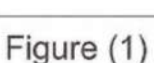
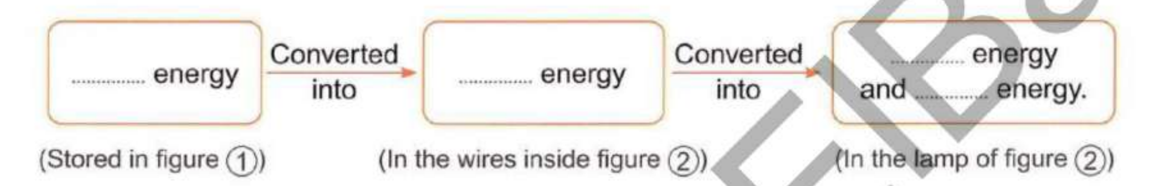


Figure (1)



Figure (2)

1. Figure (1) stores .... energy.
2. Figure (2) needs a source that produces .... energy to be operated.
3. The energy chain that is produced due to inserting figure (1) inside figure (2) and turning it on is :



2. Choose from column (A) what suits it in both columns (B) and (C) :

(A) Energy used	(B) The item	(C) Energy produced
1. Kinetic energy	a.	A. Thermal energy.
2. Electrical energy	b.	B. Chemical energy.
3. Solar energy	c.	C. Sound energy.

1. .... → ....   2. .... → ....   3. .... → ....

3. Look at the opposite picture, then choose the correct answer:


Burning coal

1. **Coal is burned to produce ....**

a. thermal energy. b. sound energy.

c. natural gas. d. wood of trees.

2. **Coal and .... are used in warming houses.**

a. water b. plastic

c. sand d. wood

4. Look at the opposite picture, then choose the correct answer according to your studying of how electric power stations work :

1. **To generate electricity inside electric power station, we need to .... the fuel.**

a. cool b. mix water with

c. burn d. mix sand with

2. **Steam in electric power station is produced as a result of ....**

a. heating water. b. mixing water with fuel.

c. cooling water. d. cooling fuel.

3. **On generating electricity inside electric power stations, ... is the first type of energy which is produced from burning of fuel.**

a. electrical energy b. thermal energy

c. potential energy d. kinetic energy

Model Answer

(1) Write the scientific term:

1. Battery
2. Electric energy
3. Mars rover curiosity
4. Electrical energy
5. Electrical energy
6. Sun
7. Thermal energy
8. Coal
9. Chemical energy
10. Light energy
11. Law of conservation of energy
12. electric energy
13. chemical energy
14. electrical energy
15. thermal energy
16. thermal energy
17. thermal energy
18. fuel
19. renewable energy
20. non-renewable energy
21. liquid fuel
22. fossil fuel
23. coal
24. oil

(2) Complete the following sentences by using these words:

1.

1. chemical
2. thermal
3. electrical – kinetic

2.

1. Sun
2. Chemical – kinetic
3. Coal
4. Thermal
5. heat

(3) Choose the right answer:

1. A
2. A
3. C
4. C
5. D
6. B
7. B
8. A
9. D
10. A
11. D
12. C
13. B
14. A
15. B
16. A
17. D
18. A
19. C
20. D
21. A
22. B
23. A
24. B
25. D
26. D
27. C
28. A
29. B
30. A
31. D
32. C
33. B
34. A
35. C
36. D
37. B
38. B
39. A
40. B
41. D
42. A
43. B
44. C

(4) Complete the following:

1. Chemical – electrical – kinetic
2. Electrical
3. Battery
4. Electrical
5. Solar – electrical
6. Electrical
7. Kinetic – sound
8. Kinetic – thermal
9. Chemical – kinetic
10. Thermal
11. Electrical – thermal
12. Created – destroyed – converted
13. Light – thermal
14. Thermal
15. Kinetic
16. Electrical – light – thermal
17. Electrical – output
18. Input – output
19. Renewable
20. Non-renewable
21. Biofuel – fossil fuel
22. Biofuel – charcoal
23. Charcoal – oil – coal
24. Nonrenewable
25. Renewable – electricity
26. Thermal

(5) Put (√) or (X)

1. (√)
2. (X)
3. (√)
4. (X)
5. (X)
6. (X)
7. (X)
8. (√)
9. (√)
10. (√)
11. (√)
12. (X)
13. (√)
14. (X)
15. (X)
16. (X)
17. (X)
18. (X)
19. (√)
20. (√)
21. (X)
22. (X)
23. (√)
24. (X)
25. (X)
26. (√)
27. (√)
28. (X)
29. (√)
30. (√)
31. (√)

(6) Correct the underline

1. Sun
2. Battery
3. Sun
4. Sun
5. Chemical
6. Electrical
7. Thermal
8. Sun
9. Thermal
10. Small
11. Long
12. Decrease
13. Biofuel
14. Natural gas
15. Heat
16. renewable
17. electrical

(7) Give reason for:

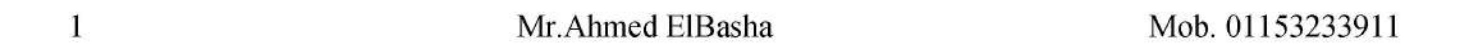
1. Because the chemical energy stored in battery is converted into electrical energy that changes into kinetic energy that makes the car moves.
2. Because the energy of sunlight (solar energy) is converted into electrical energy which calculators use it to be operated.
3. Due to the presence of solar panels that use sunlight to recharge its batteries.
4. Because they can be replaced shortly after being used.
5. Because they are used at a rate faster tha.n they can be renewed.
6. Because when wood is burned, it release gases that cause air pollution.
7. Because the kinetic energy is converted into thermal energy.
8. Because some of the electrical energy is converted into thermal energy.
9. Because it doesn't help the mobile phone to do its main function.
10. To conserve the electricity.

✹(8) What happen if:

1. The car will not move.
2. Solar energy is converted into electrical energy that operate them.
3. It cannot be operated
4. You feel warm.
5. Some energy is wasted as thermal energy.
6. The electrical energy is converted into kinetic energy.
7. They will form oil and natural gas.

✹(9) TRY TO ANSWER:

1.	**2.**
1. Chemical 2. Electrical 3. Chemical – electrical – light and thermal	1. **B – c** 2. **C – a** 3. **A - b**
3.	**4.**
1. **A** 2. **D**	1. **C** 2. **A** 3. **B**



المراجعة رقم (7)

اختبار شهر فبراير





Give reason to the following

1- **A remote-controlled toy car needs a battery to move from one place to another.**

Because the chemical energy stored in battery is converted into electrical energy that changes into kinetic energy and moves the car

2- **Some calculators use sunlight to operate.**

Because the solar energy is converted into electrical energy which is used to operate calculators

3- **Mars rover curiosity operates for a long period of time on Mars without any need to be charged.**

Due to the presence of solar panels that use sunlight to recharge its batteries.

4- **There is energy change when you press the spring of a soap dispenser.**

Because the potential energy stored in the spring is changed into kinetic energy that moves the soap upward

5- **When you rub your hands together, you feel warm.**

Because the kinetic energy is converted into thermal energy

6- **Not all the energy that enters the energy chain completely reaches the device.**

Because some of the energy is wasted in the form of heat

7- **You feel heat when you put your hands near a lighted electric lamp.**

Because some of the electrical energy is converted into thermal energy





8- The presence of batteries inside a toy car

Because batteries are the source of energy where chemical energy is converted to electrical energy that is converted to kinetic energy to move the car

9- Thermal energy in a mobile phone is considered a waste of energy.

Because it does not help the mobile phone to do its function

10- The electrical energy that enters the hair dryer does not come out of the hair dryer in the same form of energy.

Because it is converted into kinetic, thermal, and sound energies.

11- Sound energy and thermal energy are considered as wasted energy in the blender.

Because they do not help the blender to do its main function

12- Fuel is very important for different means of transportation.

Because it is burned inside the engines to produce thermal energy that is changed to kinetic energy which allows different means of transportation to move

13- Sometimes the fuel indicator of a car goes down.

Because the fuel in the car tank runs out

14- Gasoline is burned inside a car engine.

To produce thermal energy which changes into kinetic energy that causes the car to move.

15- Water and wind are considered as renewable resources of energy.

Because they can be replaced after a short period of time





16- **Coal and gasoline are considered as nonrenewable resources of energy.**

Because they are used faster than they can be renewed

17- **Using wood of trees as a fuel has negative effects on the environment**

Because continuous cutting of trees leads to deforestation

18- **We must turn off lights that we do not need.**

To conserve electricity

19- **Generators are important in electric power stations.**

Because generators convert kinetic energy into electrical energy

What happens if?

1- **Batteries of remote-controlled toy car ran out.**
The car will not move, and we should replace the batteries or recharge them.

2- **Solar calculators were exposed to sunlight.**
Solar energy is converted into electrical energy that operates the calculator.

3- **Mars rover curiosity did not get any sunlight on Mars surface.**
It cannot be operated because it depends on solar energy to charge its batteries.

4- **The change of energy when you turn on the television.**
The electrical energy is converted to sound and light energy

5- **The change of energy when you burn a piece of wood.**
The chemical energy is changed into thermal and light energy.





6- **The change of energy when you shake a small bell with your hand.**

The kinetic energy is changed to sound energy.

7- **You put your hands near a lighted lamp.**

You will feel warm because some of the electrical energy is changed into thermal energy.

8- **You use a mobile phone for a long time.**

Some of the energy is wasted in the form of thermal energy.

9- **You turn on an electric fan.**

Electrical energy is converted into kinetic, sound, and thermal energies.

10- **The car fuel indicator if the amount of gasoline in a car decreases**

The fuel indicator will go down.

11- **The car movement if fuel runs out in a car.**

The car movement will decrease until it stops.

12- **People increase using the wood of trees as a source of fuel.**

It leads to deforestation that causes negative effects on the environment.

13- **The remains of dead living organisms were buried under the Earth over millions of years.**

They are converted into fossil fuels.

14- **Decomposition of remains of sea animals under the Earth's surface**

They will form oil and natural gas.

15- **A generator that is connected to a damaged turbine in an electric power station.**

Turbines cannot produce kinetic energy so the generator will not turn and do not generate electricity.

16- **The movement of turbine if the water in an electric power station is not heated.**

Water will not produce steam so the turbine will not move or produce kinetic energy.







كيفية طباعة صفحات معينة من ملف معين

مثلا ازاى نطبع الصفحات من صفحة 4 الى صفحة 9



خطوة 1

خطوة 2
اختيار اسم الطابعة بتاعتك

خطوة 3
كتابة الصفحات المراد طباعتها
نكتب رقم 4 ثم نكتب الشرطة دي – ثم نكتب 9

خطوة 4
اختيار نوع الورق

خطوة 5
اختيار A4

خطوة 6

File Edit View E-Sign Window Help
Open... Ctrl+O
Reopen PDFs from last session
Create
Insert Pages
Save Ctrl+S
Save As... Shift+Ctrl+S
Save as Other
Reduce File Size
Export To
Protect Using Password
Request Signatures
Share File
Revert
Close File Ctrl+W
Properties... Ctrl+D
Print... Ctrl+P
1 0003.pdf
2 E:\Image\pdf\0001.pdf
3 0001.pdf
4 Adobe Scan 2 Sep 2021.pdf
5 E:\Image\New folder\2.pdf
View All Recent Files...
Exit Application Ctrl+Q

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Copies: 1 | Print in grayscale (black and white) | Save ink/toner
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More Options
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Fit | Actual size | Shrink oversized pages | Custom Scale: 100 %
Choose paper source by PDF page size
Orientation: Auto | Portrait | Landscape
Comments & Forms: Document and Markups | Summarize Comments
Document: 21.0 x 29.7cm
21.59 x 27.94 cm
Page 1 of 18
Page Setup... | Print | Cancel

Page Setup
Paper
Size: A4
Source: Automatically Select
Orientation: Portrait | Landscape
Margins (millimeters): Left: 25 | Right: 25 | Top: 25 | Bottom: 25
OK | Cancel